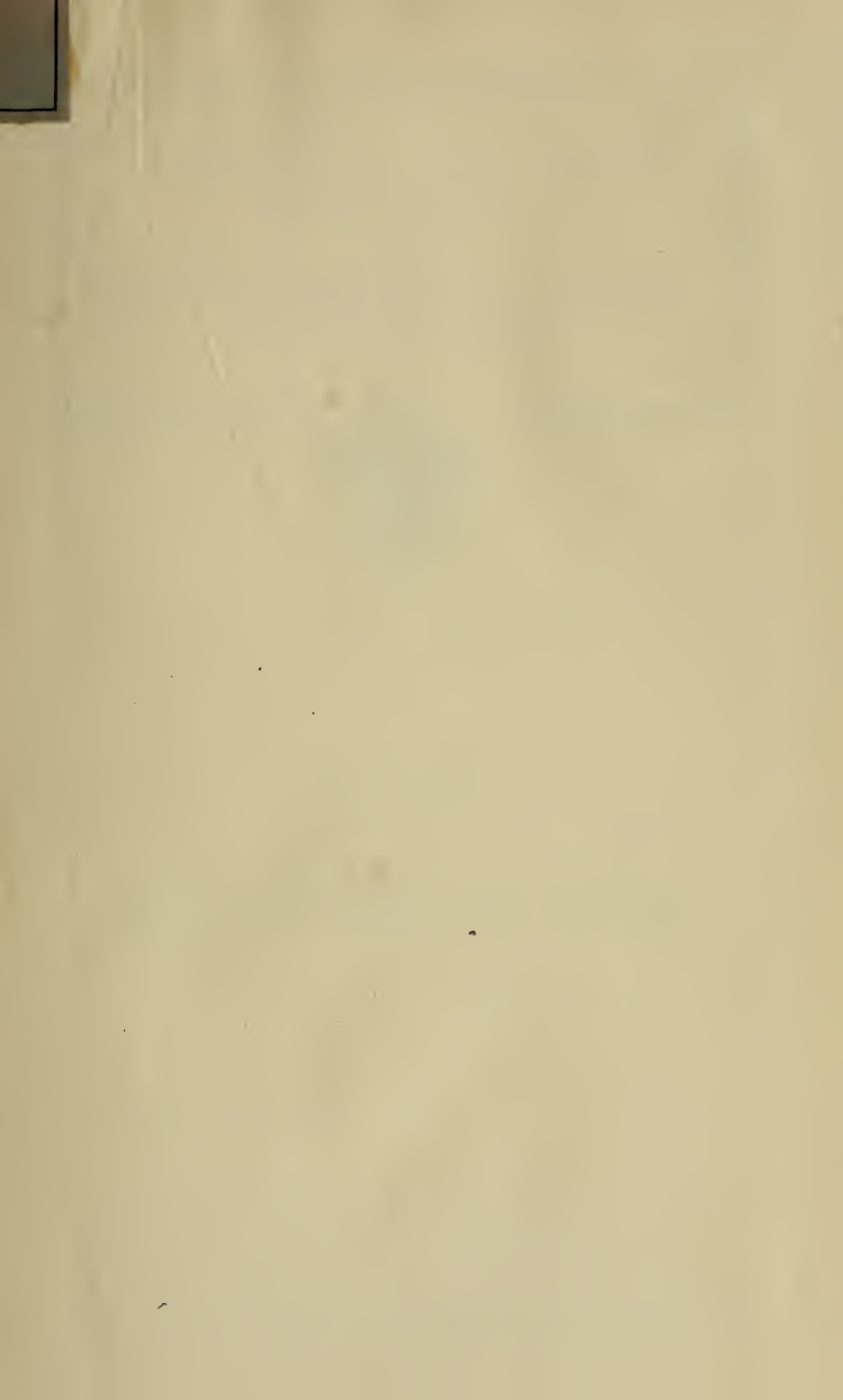


614M3
S795
Vol. 3
B



PUBLIC HEALTH BULLETIN

ISSUED MONTHLY

BY THE

STATE DEPARTMENT OF HEALTH
OF MASSACHUSETTS



JANUARY, 1916

- Dec 1916

Vol. 3, No. 1 - 12

ALLAN J. McLAUGHLIN, M.D., *Commissioner*

MASSACHUSETTS

1916

DEPARTMENT OF HEALTH

The Common Health of the Commonwealth

Entered as Second-class Matter Oct. 26, 1914, at the Post Office at Boston, Mass.,
under the Act of Aug. 24, 1912

C/B

Gift
8-16-54
STATE LIBRARY OF MASSACHUSETTS

AUG 17 1954

STATE HOUSE, BOSTON
CONTENTS.

	PAGE
The Tuberculosis Nurses' Conferences, ...	3
Material Relief — Tuberculosis Visiting Work, ...	5
Summary of the Annual Report of the Surgeon-General of the United States Public Health Service, ...	9
Résumé of Communicable Diseases for December, 1915, ...	11
Returns of Diseases, ...	13
Returns of Deaths, ...	14
Report of the Bacteriological Laboratory.	19
Food and Drugs, ...	20
Summary of Analyses, ...	20
Prosecutions for Violations, ...	21
Cold Storage of Food, ...	21
Slaughtering, ...	21
List of Adulterated or improperly Labeled Foods, for December, 1915, ...	22

67413
8796
1013
B

THE TUBERCULOSIS NURSES' CONFERENCES.

BEGINNING in September, 1915, conferences under the joint auspices of the State Department of Health and the Instructive District Nursing Association of the City of Boston (Miss Mary A. Beard, director) have been held each month, for the purpose of having certain aspects of the tuberculosis dispensary nurses' work emphasized to them, and for the purpose of giving them an opportunity to meet and exchange ideas with other nurses doing similar work throughout the State, so that their personal grasp of their local tuberculosis situation may be improved. These dispensary nurses are in effect receiving a postgraduate course of instruction in the details of their work.

The first thing done at the September meeting was a detailed inspection of the Boston Consumptives' Hospital Out-patient Department, the nurses attending the conference being shown all there was to see in records and workings of a big tuberculosis dispensary in a large city. From there the nurses went to the clinic at the Boston Dispensary, where Miss Lucy W. Bradley, the social worker, opened discussion of tuberculosis work by giving a practical talk from her experience, with especial reference to home visits. In the afternoon Mrs. A. B. Perry, social worker for the Springfield Association for the Prevention of Tuberculosis, read a paper concerning the work done in Springfield. This was followed by a discussion, opened by Eugene R. Kelley, M.D., director of division of communicable diseases of the State Department of Health, on the subject of tuberculosis in a broad sense, with especial reference to tuberculosis dispensaries. Dr. Kelley stated among other things that it was the plan of the State Department of Health to know the who, where and why of each tuberculous person, and to follow him in a friendly spirit. This was to be done (1) through routine morbidity reports, (2) the large town dispensary, (3) the institutional information, and (4) personal work by district health officers. There was a discussion of details, giving a general idea of the method of procedure in the office of the State Department of Health, the attitude of the profession, the differences in towns, and the conception of nurses' duties and their qualifications.

The October¹ meeting was held in Springfield in connection with the New England Conference on Tuberculosis.

¹ See article in October Bulletin, "Tuberculosis Dispensaries."

The combined meeting of November and December was given to the subject of "Relief," and the experiences of experienced tuberculosis workers were heard in the forenoon. Talks or papers were given by Miss Lucy W. Bradley, worker in charge of tuberculosis section, Social Service Department, Boston Dispensary; Miss Z. M. Gardner, head nurse of the Boston Consumptives' Hospital Out-patient Department; Mrs. E. Janet Sherry, nurse for the Salem Association for the Prevention of Tuberculosis; and Miss Bernice W. Billings, field worker for the Massachusetts Trustees of Hospitals for Consumptives. In the afternoon Mr. Robert W. Kelso of the State Board of Charity talked on "Relief." Mr. Kelso stated that what he had to say would relate itself pretty much to the aspect of the nurses' work where it passes out of their jurisdiction into the field covered by somebody else, emphasizing at this point that one of the reasons why the district nurse, tuberculosis nurse, local visitor and the like do not know more about public relief is because they have a dread of reading dry statutes, — "poor stuff to study, as a matter of fact," he said, "that is where the information lies, and no person is equipped until he knows what the statute law is with reference to his field." The State Board of Charity laws with reference to the subject of "Relief" were explained, and the need of the interrelation of charitable agencies emphasized. Abstracts of a case were given which brought out a family's attitude toward the State and charitable agencies, and the attitude of the State and charitable agencies toward a family. Dr. Eugene R. Kelley of the State Department of Health opened a discussion which followed.

The conference in January was held in conjunction with the State district health officers' monthly meeting. The director of the division of communicable diseases opened the conference by stating briefly what had been accomplished during the past six months and his hopes for the coming year, and read from that section of the annual report of the epidemiologist of the State Department of Health which related to tuberculosis.

Papers or talks were given by the State district health officers, and discussions were opened by the nurses as follows: —

Dispensaries. John S. Hitchcock, M.D., Northampton.

Discussion, Miss Mary A. Leamy, Gardner.

Finding Patients — Who? Where? Why? Merrill E. Champion, M.D., Quincy.

Discussion, Miss Bernice W. Billings, Boston.

Use of Existing Hospitals, Need for More? Charles E. Simpson, M.D., Lowell.

Discussion, Miss Lillie M. Hall, Taunton.

The Incurable Consumptive. Wm. W. Walcott, M.D., Natick.

Reporting Tuberculosis (Private Doctors). Lewis Fish, M.D., Fitchburg.

Discussion, Mrs. Mabel Greely Smith, Cambridge.

Families of Patients, — Contact Infection. Success in obtaining Dispensary Examination. Lyman A. Jones, M.D., Swampscott.

Discussion, Miss Katherine V. Casey, Southbridge.

Home Sanitation. Adam S. MacKnight, M.D., Fall River.

Discussion, Miss Anna I. Burke, Holyoke.

Industrial Sanitation. Wm. W. Walcott, M.D., Natick.

Discussion, Miss Anna M. Allan, Lawrence.

MATERIAL RELIEF — TUBERCULOSIS VISITING WORK.¹

MISS LUCY W. BRADLEY, *Worker in Charge of Tuberculosis Section, Social Service Department, Boston Dispensary.*

I do not believe the function of relief is a legitimate one for a tuberculosis worker who is connected with a clinic or medical institution, and by relief I mean material relief, whether it be milk or eggs or tents or hot-water bags or food and clothing. Now there are several reasons which I might bring forth to substantiate that conclusion, but I won't touch on all of them in the short time which has been allowed me. There are two fundamentals, and that is enough to give me a little ground to stand on. First, it is not our function, and of course that brings out the question, what is our function? In plain English we are told that as tuberculosis workers we are public health agents. I don't know what it means to you, but to me the phrase "public health" means prevention of disease. The word "prevention" means numerous things, and to our own little special group here this morning it means the prevention of tuberculosis. Of course when we think of public health we all realize that good food and sufficient clothing and good homes enter into a good standard of health in the community, and that those who contribute to these aspects of public health are aiding in the movement; but we are strictly health agents, medical social workers, and to my mind our field is definite and limited. Of course, so long as there is insufficient income with poor homes, and the other lack of those material things which go with them, there will be need of relief work; but when we enter the field of relief work we are entering a very large aspect of social work, — a field which antedates our health work by many, many years, in which there

¹ Impromptu remarks made before the Nurses' Conference Dec. 2, 1915.

is a large corps of workers even larger than ours, and to me the handling of relief is a technical question which requires training and experience just as much as the handling of tuberculosis docs; and if the health agents attempt to go into it, — and this leads us on to my second point and reason, which is, if we attempt to do it, — we shall in all probability do it badly and perhaps do more harm than good. I think all of us who have been in the work a number of years have had to come through this process of travail in regard to relief. We have done it, many of us, and done a great deal. Much of it may have been a help. I think more of it has been a hindrance to our real purpose, which is prevention. I remember the first dispensary with which I was ever connected. One of my duties in the morning before I went out in the district was to serve 250 quarts of milk to the patients. Afterwards, in going into their homes, what did I find? I found that in some cases the milk was but a drop in the bucket compared with the nourishment which was needed; in other cases, that the people could really afford to pay for the milk, — it was a form of pauperization; in other families that it was perpetuating bad conditions. As far as the increase in infection is concerned, in no case that I can remember now as I look back on it was it fulfilling our fundamental purpose of prevention. I knew something was wrong, but I didn't know what the trouble was. Of course, I was green — unsophisticated in tuberculosis work. I simply recall this experience to show you that I have been as large an explorer as any one in the giving of relief. Even after we came to Boston there were milk and eggs given at the dispensary at first and also a great deal of clothing, and I am still giving some clothing. I have been unable to free myself entirely from it even in this year of grace 1915, and I think it is one of the last things that we shall be able to detach ourselves from, because clothing is so much needed in our special type of disease, and it is the easiest thing we can get to give and perhaps one of the most difficult things to obtain from agencies. For instance, here in Massachusetts the charity agents take the ground that clothing, being part of the treatment, should be furnished in the budget of the sanatoriums, whereas the managements of the sanatoriums claim they have no provision for this in their budget, so the patients must look elsewhere, and they are apt to fall between these two stools unless the tuberculosis worker comes to the rescue.

Our latest policy at the dispensary has been to take what clothing we have given to us — we are always given a great deal. It is passed on to the Boston Provident. Then if we need clothing we obtain it

from them. This relieves the dispensary of the reputation of becoming a relief agency, which I said in the beginning is a drawback, it seems to me, in our medical work. There are medical institutions which if given a standing of relief institutions are put in the wrong light toward the patient. People who do not want relief will look askance at us. They won't have the respect for us that they would have if we were strictly medical, and that large class who are always looking for aid will be obliged to buy clothing; and then there is the self-respecting class, and this class (a large one) it is so easy to pauperize. Then the question comes up, what shall we do if we do not give relief? It is, of course, our function to see that the things which are needed are supplied, and to me that is the test of a good social worker in securing the co-operation of other agencies, — the co-operation and intelligent interest of other agencies. I said we should do it (relief work) badly because we are not trained to do it, and we are not, even those of us who have had the usual course of training in schools of philanthropy, — training in social work. The most of such training gives us judgment and discretion in referring cases. From what we know of distress we are able to distinguish between families which should not be referred and those which are suitable for overseers' care only, or those which can be rehabilitated or their present standard maintained. One of the mistakes which workers make and delay good treatment and educational work is by referring cases to agencies which are not suitable to deal with them. Then the question comes up of the organization of relief. We say we need not do it. We shall get it from other organizations that should organize the relief. The tuberculosis worker is the one who is going into the family and who is supposed to size up the situation. I can see how in a great many instances it would be necessary for the tuberculosis worker to organize the relief which would be necessary in the smaller communities, for instance, where there is no paid Associated Charities worker who could conduct relief work with discretion and judgment, and where the tuberculosis worker could undoubtedly do it better than the volunteer workers in the various church societies. In these cases I think the worker would be the legitimate organizer, but in our large communities where we have charity organization societies I see no reason why the tuberculosis worker should organize the material relief. It is up to the Associated Charities worker. On the other hand, I do think that the tuberculosis worker should keep in very close touch with all agencies that may be interested in the family. For instance, your Associated Charities secretary may be working in your family; there may be a child-placing agency that is

also interested. They like to get the medical facts on the family directly from the medical agency rather than through the Associated Charities worker, and it is much better that they should, though I think we should keep in close and personal touch with other agencies. The Associated Charities secretary should be the organizer of the relief if there is one. Miss Beard made reference to the tenth anniversary of the Massachusetts General Hospital Social Service which we have been enjoying for two days. One of my greatest pleasures was to meet various workers from all over the country. Among them were quite a number from New York, some from Bellevue Hospital I remember especially, and one of the first things that they asked was if we gave relief. I said, "No. What are you doing at Bellevue?" "Giving a great deal of relief, and we don't see how we can help it. If a man comes there with his toes on the ground, — no shoes, — what are we going to do? We have to give him shoes." I asked, "Do the relief agencies refuse to give him the shoes?" They replied, "Why, no; they didn't send him. The relief agencies have so much to do, it is so hard to get things, that they feel we ought to do our share." What is the result? It is that Bellevue is so widely known as a material relief station for shoes, etc., that they not only have demands from patients who come there, but they receive letters from all round the larger New York towns asking for things. The workers realize that it is wrong, but don't know how to get round it, — just how to start an entirely new policy. I could understand why they didn't send the man without the shoes to the relief agencies, but until the relief agencies refused to help, or said it was not their function, or that they expected the social workers to do their share, then only would they be justified in so doing. If we just reverse the thing: suppose a man without shoes went to the relief agency, — went for his shoes, and they attempted to supply the shoes, but he complained of being sick at his stomach, acute gastric symptoms, which might mean appendicitis coming on, or he might have gastric ulcers, but the relief agent or worker might say, "I think an emetic would be good for you," and perhaps aid him to the extent of giving him one, whereas it would be the very worst thing she could do, and perpetuate a bad condition, and the medical workers would not like that. We would think the relief worker out of her sphere, — no more so than for us to provide the man with shoes. If a man came into our dispensary this morning with his toes sticking out of his shoes it shows that he is out of place, out of joint with society. He needs something more than shoes, and he should be referred to those people who deal with humans who are out of joint with society. Tuberculosis workers are not meant

for that kind of work. In regard to relief in the home, I went to a clergyman in Boston, executive secretary of one of our largest charitable aid societies, and begged him to stop putting relief into a family where there was a positive case of tuberculosis who refused to go away, and he refused to do it. He thought I was hard hearted. I asked him to spend the same amount of money on a young man who wanted to get back to the southwest, where he would be able to get work. I wanted his fare to take him back. He looked upon me as a medical worker who did not know much about relief work, which was probably why I had no more influence with him, whereas if an Associated Charities worker had conferred with him she might have had more influence.

Prevention is our job. Anything we can put into a home which will help toward prevention is legitimate, but whoever gives relief — the Associated Charities worker may give relief partly on her own judgment — you have to interpret it all. She depends on you. When we think of relief in terms let us hark back to our original job of prevention. Anything which will aid in that is legitimate relief. What will not aid in prevention be wary of.

SUMMARY OF THE ANNUAL REPORT OF THE SURGEON-GENERAL OF THE UNITED STATES PUBLIC HEALTH SERVICE.

THE annual report of the surgeon-general of the United States Public Health Service records the largest amount of work performed in the history of that organization. Since the passage of the law of 1912 the public health functions of the service have materially broadened, thereby increasing greatly its usefulness to the American people. Throughout the report the economic importance of disease prevention is made apparent to the reader.

Perhaps the most important achievement of the year was the discovery that pellagra is a deprivation disease, resulting from a faulty diet containing an excess of carbohydrates. While the final experiments which led to this discovery have only recently been completed, the conclusion itself is the culmination of investigations extending over a period of seven years. The work has consisted of epidemiological field studies, actual feeding experiments conducted at numerous places in Georgia and Mississippi, and experimental research at Spartanburg, S. C., and other places.

A new national quarantine station was opened at Galveston, Tex., and the control of the Boston station was transferred to the Public Health Service. A great reduction in immigration has been observed during the year, with a corresponding increase in the number of aliens certified. At the port of New York the percentage has risen from 2.29, previous to the development of the European conflict, to 5.37 since that time, this increase largely being due to the fact that with the decreased immigration more time can be devoted to the examination. The number of cases treated at marine hospitals and relief stations exceeded 55,000, 15,000 of which were hospital patients, a considerable increase over previous years. The coast guard cutter "Androscooggin" was fitted out as a hospital ship, and now affords relief to deep-sea fishermen on the Banks of Newfoundland.

On the occurrence of plague at New Orleans the first outbreak upon the Gulf seaboard, the State and local health authorities requested the Public Health Service to take charge of the situation. Extensive rat-proofing and other antiplague measures were undertaken, resulting in the eradication of the disease from among human beings, and the practical extermination of the rodent infection.

Great reduction in the incidence of malaria was obtained in localities where surveys were conducted. Drainage projects, rice culture studies and the conditions surrounding the impounding of water for power purposes were investigated in order to eradicate as far as possible the disease in these areas. Scientific investigations of malarial infection showed that in the latitude of this country the most important agent in carrying the infection through the winter season is man, and not the infected, hibernating *Anopheles* mosquitoes, as was previously supposed. From the standpoint of prevention this is a discovery of considerable value.

Studies of occupational diseases and industrial hygiene were instituted at several places during the year. A survey of the industries of Cincinnati was made to determine the cause of the prevalence of tuberculosis among industrial workers. The investigations relating to the migration of persons suffering from tuberculosis were completed.

Upon the request of the health authorities of five States the organization and operations of the respective boards of health were studied and recommendations advanced for improvement in the powers and duties of these bodies. The health organizations of several cities were likewise investigated.

Investigations of the pollution of streams and the examination of shellfish were also conducted.

Trachoma was combated in the Appalachian Mountains, where it

is most prevalent, over 12,000 cases being treated. Surveys in certain States during the year showed that the disease is not an uncommon infection.

Rural sanitation work was conducted in six different States, and everywhere resulted in the reduction of typhoid and other communicable diseases.

Public health laboratories for the prevention of the interstate spread of disease were established at Chicago, Seattle and numerous other railway centers.

Additional duties have been imposed upon the service by extension of relief benefits to the newly organized coast guard and the physical examination of seamen applying for the rating of "able seaman." For this reason, and because of the greatly increased health functions of the service, an increase in the commissioned personnel is recommended. An additional building for the hygienic laboratory and the establishment of a national leprosarium for the proper segregation and care of cases of leprosy are also recommended.

RÉSUMÉ OF COMMUNICABLE DISEASES FOR DECEMBER, 1915.

Prevalence.— There was a considerable increase in the total number of cases of communicable diseases reported to this department during the month of December, 1915, as compared with the same month last year. This increase has been due almost entirely to the increased prevalence of whooping cough and measles.

Mortality.— The striking feature of the December mortality returns is the number of deaths from diphtheria, measles, typhoid fever and whooping cough.

Diphtheria seems to have been unusually virulent. During November, 1915, there were 1,098 reported cases, with 65 deaths, while in December, 1915, there were 942 cases, with 80 deaths. This may be partly accounted for by incomplete reporting or failure to administer antitoxin early enough.

The fatality rate of measles during December was almost double that of November. In November there were 664 cases, with 5 deaths, while in December there were 1,148 cases, with 16 deaths. This number of deaths again calls the attention of all health workers to the importance of measles as a dangerous disease. However, this number of deaths does not give any adequate indication of the amount of damage done by this infection.

With 136 reported cases of typhoid fever there were 17 deaths during the month of December. This is an unusually high mortality for this disease.

Whooping cough accounted for 20 deaths during December. While the mortality from this disease was not as high as during November, it caused almost three times as many deaths as it did for the month of December, 1914.

Distribution.—The distribution of the increased prevalence of the various communicable diseases in the Commonwealth is of considerable interest. While the numerical increase of cases is due to the diseases named above, some of the other communicable diseases are of particular importance. Diphtheria, scarlet fever and typhoid fever were present in a number of cities and towns in unusual amounts.

Chicken pox was reported in unusual numbers from the following cities and towns: Brockton, Brookline, Cambridge, Lancaster, Orleans, Pittsfield and Springfield. This is of particular interest to health officials only on account of its relation to smallpox.

Measles is markedly on the increase in various parts of the State. Some of the places in which it is present in the greatest amounts are as follows: Brookline, Chelsea, Lawrence, Lynn, Salem, Saugus, Winthrop and Webster.

Whooping cough is present in unusual numbers in the following cities and towns: Cambridge, Natick, New Bedford, Newton, Pittsfield and Somerville.

Scarlet fever is unusually prevalent in the following cities and towns: Arlington, Brookline, Cambridge, Lawrence, Leominster, Lowell, Lynn, Springfield and Winthrop.

While diphtheria has decreased somewhat in amount, it still remains important in many cities and towns. Among these are: Brookline, Cambridge, Fall River, Fitchburg, Haverhill, Lawrence, New Bedford, Newton, Orange, Southbridge and Springfield. While in Lynn and Worcester it is still present in considerable numbers, it seems to be declining.

The only important focus of typhoid fever in the State is at Fall River.

Epidemics.—During the month of December there was a sharp increase in the number of cases of typhoid fever reported from Fall River. Most of the cases were located in the south end of the city. An investigation into the source of the infection shows that almost all of these cases had received their milk supply from one collector, whose place of business is in Rhode Island. The Fall River board of health took prompt action and arranged to have this milk supply pasteurized

under their supervision. The State district health officer reports that the situation is apparently under control.

Rare Diseases. — During the month one case of amebic dysentery has been reported from Cambridge, one case of tetanus from Northampton, and one case of actinomycosis from Somerville.

RETURNS OF DISEASES.

CASES OF DISEASES DECLARED BY THE STATE DEPARTMENT OF HEALTH TO BE DANGEROUS TO THE PUBLIC HEALTH.

[Under the provisions of section 52 of chapter 75 of the Revised Laws.]

DISEASE.	WEEK ENDING —				
	Dec. 4.	Dec. 11.	Dec. 18.	Dec. 25.	Total.
Actinomycosis, ...	—	—	1	—	1
Anterior poliomyelitis, ...	8	5	3	1	17
Anthrax, ...	2	—	—	—	2
Cerebro-spinal meningitis, ...	—	1	3	3	7
Chicken pox, ...	212	196	181	159	748
Diphtheria, ...	246	274	229	193	942
Dog bite (requiring antirabic treatment), ...	4	3	—	—	7
Dysentery, ...	14	1	—	1	16
German measles, ...	6	9	4	4	23
Infectious diseases of the eye: —					
(a) Ophthalmia neonatorum, ...	38	58	40	35	171
(b) Suppurative conjunctivitis, ...	12	3	6	2	23
(c) Trachoma, ...	1	1	1	—	3
Measles, ...	260	243	337	308	1,148
Mumps, ...	36	31	22	35	124
Scarlet fever, ...	170	220	167	152	709
Septic sore throat, ...	4	7	7	5	23
Tetanus, ...	1	1	—	—	2
Tuberculosis, pulmonary (or not classified), ...	132	152	137	104	525
Tuberculosis, other forms, ...	14	9	16	11	50
Typhoid fever, ...	29	31	49	27	136
Whooping cough, ...	182	208	166	170	726

RETURNS OF DEATHS.

DEATHS FROM DISEASES DECLARED BY THE STATE DEPARTMENT OF
HEALTH TO BE DANGEROUS TO THE PUBLIC HEALTH.

[Under the provisions of chapter 210, Acts of 1913.]

DISEASE.	WEEK ENDING —				
	Dec. 4.	Dec. 11.	Dec. 18.	Dec. 25.	Total.
Anterior poliomyelitis, ...	1	1	3	—	5
Anthrax, ...	2	—	—	—	2
Cerebro-spinal meningitis, ...	1	1	1	1	4
Diphtheria, ...	24	18	21	17	80
Measles, ...	2	1	8	5	16
Scarlet fever, ...	1	1	1	1	4
Tetanus, ...	1	—	—	—	1
Tuberculosis, pulmonary (or not classi- fied), ...	73	58	47	45	223
Tuberculosis, other forms, ...	6	4	12	11	33
Typhoid fever, ...	7	5	3	2	17
Whooping cough, ...	3	6	5	6	20

WEEKLY RETURNS OF DEATHS FROM DISEASES DECLARED BY THE STATE DEPARTMENT OF HEALTH TO BE DANGEROUS TO THE PUBLIC HEALTH IN CITIES AND TOWNS IN MASSACHUSETTS.

[Under the provisions of chapter 210, Acts of 1913.]

In all cases where the name of a community is not mentioned it signifies that no deaths from these diseases have been reported to this office for the period covered by the table.

Week ending Dec. 4, 1915.

CITIES AND TOWNS.	Population. Census for 1910.	Diphtheria.	Measles.	Scarlet Fever.	Tuberculosis, Pul- monary (or not classified).	Tuberculosis, Other Forms.	Typhoid Fever.	Whooping Cough.
Boston, ...	686,092	4 ¹	1 ¹	-	24 ²	1	2	1
Worcester, ...	145,986	-	-	-	4	1	-	1
Fall River, ...	119,295	1	-	-	3	-	-	-
Lowell, ...	106,294	4	-	-	8	-	-	-
Cambridge, ...	104,839	2	-	1	8	-	-	-
New Bedford, ...	96,652	1	-	-	2	1	2	1
Lynn, ...	89,336	1	-	-	-	1	-	-
Springfield, ...	88,926	-	-	-	2	-	-	-
Lawrence, ...	85,892	-	-	-	1	-	-	-
Somerville, ...	77,236	-	-	-	4	-	1	-
Holyoke, ...	57,730	-	-	-	2	-	-	-
Brockton, ...	56,878	1	-	-	-	-	-	-
Malden, ...	44,404	2	1	-	1	-	-	-
Salem, ...	43,697	1	-	-	-	-	-	-
Newton, ...	39,806	-	-	-	1	-	-	-
Taunton, ...	34,259	-	-	-	2	-	-	-
Chelsea, ...	32,452	1	-	-	1	-	-	-
Waltham, ...	27,834	-	-	-	1	-	1	-
Gloucester, ...	24,398	2	-	-	1	-	-	-
Northampton, ...	19,431	1	-	-	-	-	-	-
Westfield, ...	16,044	-	-	-	3 ²	-	-	-
Clinton, ...	13,075	-	-	-	1	-	-	-
Winthrop, ...	10,132	-	-	-	1	-	-	-
Palmer, ...	8,610	1	-	-	-	-	-	-
Braintree, ...	8,066	-	-	-	1	-	-	-
Bridgewater, ...	7,688	-	-	-	1	-	-	-
Concord, ...	6,421	-	-	-	-	-	1	-
Amherst, ...	5,112	2	-	-	-	-	-	-
Lancaster, ...	2,464	-	-	-	-	1	-	-
Wayland, ...	2,206	-	-	-	-	1	-	-
Duxbury, ...	1,688	-	-	-	1	-	-	-
Totals, ...	-	24	2	1	73	6	7	3

In addition, 1 death from anthrax was reported in Boston, 1 from anterior poliomyelitis in Attleboro, 1 death from anthrax in Chelsea, 1 death from cerebro-spinal meningitis in Lawrence, and 1 from tetanus (nonresident) in Northampton.

¹ One nonresident.

² Two nonresidents.

Week ending Dec. 11, 1915.

CITIES AND TOWNS.	Population, for 1910.	Diphtheria.	Measles.	Scarlet Fever.	Tuberculosis, Pul- monary (or not classified).	Tuberculosis, Other Forms.	Typhoid Fever.	Whooping Cough.
Boston, ...	686,092	1 ¹	1	-	20	1	-	1
Worcester, ...	145,986	-	-	1	3	-	-	-
Fall River, ...	119,295	-	-	-	4	-	-	-
Lowell, ...	106,294	-	-	-	1	-	-	-
Cambridge, ...	104,839	-	-	-	5	-	-	2
New Bedford, ...	96,652	1	-	-	2	-	2	-
Lynn, ...	89,336	-	-	-	1	1	-	-
Springfield, ...	88,926	2	-	-	1	-	-	-
Lawrence, ...	85,892	3	-	-	1	-	-	-
Holyoke, ...	57,730	-	-	-	3	1	-	-
Brockton, ...	56,878	1	-	-	2	-	-	-
Malden, ...	44,404	-	-	-	1	-	-	-
Haverhill, ...	44,115	1	-	-	1	-	-	-
Newton, ...	39,806	1	-	-	-	-	-	-
Fitchburg, ...	37,826	1	-	-	1	-	-	-
Taunton, ...	34,259	-	-	-	1	-	-	-
Everett, ...	33,484	-	-	-	2	-	-	-
Waltham, ...	27,834	1	-	-	-	-	1	-
Brookline, ...	27,792	1	-	-	-	-	-	-
Chicopee, ...	25,401	1	-	-	1	-	-	-
Medford, ...	23,150	-	-	-	1	-	-	-
North Adams, ...	22,019	1	-	-	-	-	-	-
Northampton, ...	19,431	-	-	-	1	-	-	-
Westfield, ...	16,044	-	-	-	1 ¹	-	-	-
Peabody, ...	15,721	-	-	-	-	-	1	-
Southbridge, ...	12,592	1	-	-	1	-	-	-
Winthrop, ...	10,132	-	-	-	-	-	1	-
North Attleborough, ...	9,562	-	-	-	-	-	-	1
Easthampton, ...	8,524	1	-	-	-	-	-	-
Milton, ...	7,924	-	-	-	1	-	-	-
Bridgewater, ...	7,688	-	-	-	1	-	-	-
Montague, ...	6,866	-	-	-	-	-	-	1
Winchendon, ...	5,678	1	-	-	-	-	-	-
Walpole, ...	4,892	-	-	-	1	-	-	-
Barnstable, ...	4,676	-	-	-	1	-	-	-
Provincetown, ...	4,369	-	-	-	-	-	-	1
Erving, ...	1,148	-	-	-	1	-	-	-
Totals, ...	-	18	1	1	58	4	5	6

In addition, 1 death from cerebro-spinal meningitis was reported in Boston, and 1 death from anterior poliomyelitis in Springfield.

¹ One nonresident.

Week ending Dec. 18, 1915.

CITIES AND TOWNS.	Population. Census for 1910.	Diphtheria.	Measles.	Scarlet Fever.	Tuberculosis, Pul- monary (or not classified).	Tuberculosis, Other forms.	Typhoid Fever.	Whooping Cough.
Boston, ...	686,092	4 ¹	-	-	14 ¹	3	-	5
Worcester, ...	145,986	-	-	-	2	1	-	-
Fall River, ...	119,295	-	-	-	2	1	1	-
Lowell, ...	106,294	-	-	-	2	-	-	-
Cambridge, ...	104,839	-	-	-	3	-	-	-
New Bedford, ...	96,652	2	-	-	-	1	1	-
Lynn, ...	89,336	-	-	-	2	-	-	-
Springfield, ...	88,926	1	-	-	1	-	-	-
Lawrence, ...	85,892	3	-	1	2	1	-	-
Somerville, ...	77,236	4	6	-	-	-	1	-
Brockton, ...	56,878	1	-	-	-	-	-	-
Haverhill, ...	44,115	-	-	-	3	-	-	-
Newton, ...	39,806	-	-	-	1	-	-	-
Fitchburg, ...	37,826	2	-	-	2	-	-	-
Taunton, ...	34,259	-	2	-	2	-	-	-
Everett, ...	33,484	-	-	-	1	-	-	-
Chelsea, ...	32,452	1	-	-	1	-	-	-
Waltham, ...	27,834	1	-	-	1	-	-	-
Chicopee, ...	25,401	-	-	-	5	-	-	-
Northampton, ...	19,431	-	-	-	1	-	-	-
Melrose, ...	15,715	-	-	-	-	1	-	-
Woburn, ...	15,308	1	-	-	-	-	-	-
Adams, ...	13,026	-	-	-	1	-	-	-
Frammingham, ...	12,948	-	-	-	1	-	-	-
Webster, ...	11,509	-	-	-	-	1	-	-
Saugus, ...	8,047	-	-	-	-	1	-	-
Milton, ...	7,924	-	-	-	-	2	-	-
Wilbraham, ...	2,332	1	-	-	-	-	-	-
Totals, ...	-	21	8	1	47	12	3	5

In addition, 1 death from cerebro-spinal meningitis was reported in Boston, and 1 death each from anterior poliomyelitis in Waltham, Dedham and Webster.

¹ Two nonresidents.

Week ending Dec. 25, 1915.

CITIES AND TOWNS.	Population. Census for 1910.	Diphtheria.	Measles.	Scarlet Fever.	Tuberculosis, Pul- monary (or not classified).	Tuberculosis, Other Forms.	Typhoid Fever.	Whooping Cough.
Boston, ...	686,092	4 ¹	2	1 ¹	181	3	-	4
Worcester, ...	145,986	3	1	-	4	3	-	-
Fall River, ...	119,295	1	-	-	3	-	-	-
Lowell, ...	106,294	-	-	-	-	1	-	-
Cambridge, ...	104,839	-	-	-	1	-	-	-
New Bedford, ...	96,652	2	-	-	2	-	-	1
Lynn, ...	89,336	2	-	-	1	-	-	-
Springfield, ...	88,926	-	-	-	3	1	-	-
Lawrence, ...	85,892	-	-	-	2	-	1	-
Somerville, ...	77,236	1	-	-	1	-	-	-
Holyoke, ...	57,730	1	-	-	-	2	-	-
Malden, ...	44,404	-	-	-	-	-	-	1
Newton, ...	39,806	-	-	-	-	1	-	-
Fitchburg, ...	37,826	-	-	-	2	-	-	-
Taunton, ...	34,259	-	1	-	-	-	-	-
Everett, ...	33,484	-	-	-	1	-	-	-
Chelsea, ...	32,452	-	1	-	1	-	-	-
Pittsfield, ...	32,121	-	-	-	2	-	-	-
North Adams, ...	22,019	1	-	-	1	-	-	-
Northampton, ...	19,431	-	-	-	1	-	-	-
Westfield, ...	16,044	-	-	-	1	-	-	-
Woburn, ...	15,303	-	-	-	-	-	1	-
Palmer, ...	8,610	1	-	-	-	-	-	-
Mansfield, ...	5,183	-	-	-	1	-	-	-
Rockport, ...	4,211	1	-	-	-	-	-	-
Totals, ...	-	17	5	1	45	11	2	6

In addition, 1 death from cerebro-spinal meningitis was reported in Boston.

¹ One nonresident.

REPORT UPON THE WORK OF THE BACTERIOLOGICAL LABORATORY FOR THE MONTH OF DECEMBER, 1915.

The following gives the total number of bacteriological examinations made in the laboratory of the State Department of Health during the month of December, 1915: —

	Number of Examinations.	DIAGNOSIS.		RELEASE.	
		Positive.	Negative.	Positive.	Negative.
Diphtheria, ...	2,258	164	1,660	119	315

	Number of Examinations.	Positive.	Negative.	*Atypical.
Tuberculosis, ...	231	61	170	
*Typhoid fever (Widal test), ...	132	27	103	2
Typhoid fever (culture test), ...	27	2	25	
Malaria, ...	6	—	6	
Miscellaneous, ...	86			

Total number of examinations made, 2,740.

The following gives the total number of biological products and diagnostic outfits distributed by the State Department of Health during the month of December, 1915: —

Biological Products.

Diphtheria antitoxin: —

2,000 units (special for the Boston City Hospital), ...	72 bottles.
12,000 units (special for the Boston City Hospital), ...	247 bottles.
3,000 units, ...	5,371 bottles.
1,500 units, ...	1,432 bottles.
750 units, ...	1,291 bottles.
Smallpox vaccine, ...	3,185 tubes.
Typhoid vaccine, ...	1,650 ampoules.
Antimeningitis serum, ...	118 bottles.
Silver nitrate solution in Stearns droppers, ...	67 droppers.
Silver nitrate solution in wax ampoules, ...	1,364 ampoules.

Diagnostic Outfits.

Culture tubes, ...	2,087
Sputum bottles, ...	283
Widal outfits, ...	144
Bile outfits, ...	40

FOOD AND DRUGS.

The following tables present the results of the laboratory examinations of samples of food and drugs collected during the month of December, 1915:—

The cities and towns in which samples were collected were: Amesbury, Arlington, Barre, Beverly, Boston, Brockton, Brookline, Cambridge, Chelsea, Everett, Franklin, Gloucester, Hudson, Lawrence, Lexington, Lowell, Lynn, Malden, Marlborough, Middleborough, Milford, Natick, Needham, Newburyport, Newton, Pittsfield, Plympton, Revere, Somerville, Taunton, Waltham, Wellesley and Woburn.

SUMMARY OF ANALYSES.

ARTICLES EXAMINED.	Number found to be of Good Quality.	Number adulterated or varying from the Legal Standard.	Total.
Butter, ...	1	—	1
Cider, ...	3	5	8
Condensed milk, ...	3	—	3
Confectionery, ...	3	—	3
Cream, ...	21	—	21
Drugs, ...	32	12	44
Eggs:—			
Liquid, ...	27	27	54
Frozen, ¹	99	126	225
Horse radish, ...	2	—	2
Ice cream, ...	1	—	1
Lard, ...	1	—	1
Maple syrup, ...	2	—	2
Meat products:—			
Sausages, ...	69	22	91
Milk, ...	427	55	482
Scallops, ...	8	4	12
Shrimp, ...	2	—	2
Vinegar, ...	8	1	9
Totals, ...	709	252	961

¹ Taken from cold storage.

PROSECUTIONS FOR VIOLATIONS OF THE LAWS RELATING TO FOODS, COLD STORAGE, AND SLAUGHTERING.

Ten convictions were secured during the month of December, 1915, for the sale of adulterated food, and for violation of the cold storage and slaughtering laws, as follows:—

NAME OF DEFENDANT.	Place.	Character of Article sold or Nature of Offence.
Augustus Castonguay, . .	So. Hampton, N. H.,	Milk (total solids, 11.32). ¹
James Barry, ...	Boston, ...	Scallops. ¹
James Barry, ...	Boston, ...	Swordfish (decomposed).
Sarkis Bazagian, . . .	Lawrence, ...	Olive oil (cottonseed oil). ²
Frank and Torric Bell, .	Boston, ...	Vanilla extract (label false; a solution of artificial vanillin).
Frank and Torrie Bell, .	Boston, ...	Vanilla extract (label false; a solution of artificial vanillin).
A. Warren Patch, . . .	Boston, ...	Selling cold-storage eggs without marking the container.
James W. Butler, . . .	Stoughton, ...	Slaughtering without inspector present.
Walter P. Farwell, . .	Clinton, ...	Slaughtering without inspector present.
Almon B. Raymond, . .	Quincy, ...	Slaughtering without inspector present.

¹ Watered.

² Appealed.

Fines imposed, \$155.80.

COLD STORAGE OF FOOD.

Articles in Cold Storage condemned upon Physical Examination as Unfit for Food.

Date.	ARTICLE.	Weight (Pounds).	Reason.	Disposition.
Dec. 21, 1915	Fowl, ...	140	Decomposed, ...	Rendered.

SLAUGHTERING.

During the month of December, 1915, the following confiscation was made:—

Date.	ARTICLE.	Weight (Pounds).	Reason.	Disposition.
Dec. 21, 1915	Pork, ...	440	Tainted, ...	Rendered.

LIST OF ADULTERATED OR IMPROPERLY LABELED FOODS, FOR DECEMBER, 1915.

Number of Sample.	CHARACTER OF SAMPLE.	Name of Manufacturer, Wholesaler or Producer.	Results of Analyses.
3029-T	Milk, ...	Louis Hueg, Wellesley, ...	Total solids, 11.78 per cent.; fat, 2.30 per cent.; proteins, 3.59 per cent.; skimmed milk.
3097-T	Milk, ...	James Murray, Plymouth, ...	Total solids, 11.18 per cent.; fat, 3.50 per cent.; contained added water.
5304-A	Milk, ...	Eliphaz Thomas, Middleborough, ...	Total solids, 11.16 per cent.; fat, 3.60 per cent.; contained added water.

MASSACHUSETTS STATE DEPARTMENT OF HEALTH.

Commissioner, ALLAN J. McLAUGHLIN, M.D.,
Division of Administration.

Division of Sanitary Engineering,	Director and Chief Engineer, X. H. GOODNOUGH, C.E.
Division of Communicable Diseases,	Director, E. R. KELLEY, M.D.
Division of Water and Sewage Laboratories,	Director and Chemist, H. W. CLARK.
Division of Antitoxin and Vaccine Laboratories,	Director and Pathologist, MILTON J. ROSENAU, M.D.
Division of Food and Drugs,	Director and Analyst, HERMANN C. LYTHGOE.
Division of Hygiene,	Director, SELSKAR M. GUNN.

Public Health Council.

ALLAN J. McLAUGHLIN, M.D., *Chairman.*

WM. T. SEDGWICK, Ph.D.	JOSEPH E. LAMOUREUX, M.D.
GEORGE C. WHIPPLE, S.B.	WM. J. GALLIVAN, M.D.
DAVID L. EDSALL, M.D.	JOHN T. WHEELWRIGHT, LL.B.

PUBLIC HEALTH BULLETIN

ISSUED MONTHLY

BY THE

STATE DEPARTMENT OF HEALTH
OF MASSACHUSETTS



FEBRUARY, 1916

Vol. 3, No. 2

ALLAN J. McLAUGHLIN, M.D., *Commissioner*

The Common Health of the Commonwealth

Entered as Second-class Matter Oct. 26, 1914, at the Post Office at Boston, Mass.,
under the Act of Aug. 24, 1912

CONTENTS.

	PAGE
Summary of Report of Milk Board submitted to the State Department of Health, together with Statement of Conclusion and Draft of Proposed Act relative to the Inspection of Milk, ...	27
Résumé of Communicable Diseases for January, 1916, ...	37
Returns of Diseases and Deaths, ...	40
Report of the Baeteriological Laboratory, ...	41
Food and Drugs, ...	42
Summary of Analyses, ...	42
Prosecutions for Violations, ...	43
List of Adulterated or Improperly Labeled Foods, etc., for January, 1916, ...	44
Cold Storage of Food, ...	45
Slaughtering, ...	45

SUMMARY OF REPORT OF MILK BOARD SUBMITTED TO THE STATE DEPARTMENT OF HEALTH, TOGETHER WITH STATEMENT OF CONCLUSIONS AND DRAFT OF PROPOSED ACT RELATIVE TO THE INSPECTION OF MILK.

THE milk board of the Massachusetts State Department of Health was organized by Dr. A. J. McLaughlin, Commissioner of Health, on March 29, 1915, and consisted of Dr. Eugene R. Kelley, director of the division of communicable diseases, Mr. Hermann C. Lythgoe, director of division of food and drugs, and Mr. Edward H. Williams of the engineering division. Upon June 4 Dr. J. E. Lamoureux of the Public Health Council was added to the board. Dr. Kelley was appointed chairman and Mr. Williams recorder.

The board was asked to collect all available facts relative to the milk supply of the Commonwealth for the guidance of the commissioner and the Public Health Council in drafting legislation. After an investigation lasting eight months, the milk board has submitted a report consisting of an introduction, an abstract, conclusions, the report proper and appendices. The board received valuable assistance from the analysts and inspectors of the food and drug division, who collected the data relative to local inspection and relative to the New York grading system, and from two of the district health officers, Dr. Lewis Fish and Dr. John S. Hitchcock, who contributed to a large measure in the preparation of that portion of the report relative to the relation between milk and the public health.

The report proper is divided into seven parts: —

- I. Historical.
- II. Statements of various interests.
- III. Facts of production, processing and marketing.
- IV. Facts of the present official supervision of the milk supply of the Commonwealth.
- V. The relationship between cow's milk and the public health.
- VI. Grading of milk.
- VII. Experiences of other localities.

The appendices are as follows: —

- Tabulation of answers to questionnaire on milk and disease for the years 1909-13.
- Forms of questionnaire and letters sent to local boards of health, and a list of cities and towns failing to reply to questionnaire.
- Abstract of milk-borne epidemics in Massachusetts from 1906 to 1915.
- Copy of letter sent to, and replies from, epidemiological authorities of other States relative to milk and disease.
- Influence of pasteurization on chemical content of milk.
- Status of local milk inspection: Part I., arranged alphabetically; Part II., arranged by classification.
- Statistics of milk transportation into Boston.
- Abstract of Boston Chamber of Commerce report on milk.
- Summary of dairy statistics from inspection trips of the milk board.
- Replies to questionnaire relative to local milk inspection.
- Map showing principal milk-producing sections in New England and places inspected by the milk board.
- Bibliography.
- List of conferences and meetings attended, and of persons interviewed relative to the milk question.
- Copy of article of Dr. Price of Detroit on "Infant Mortality."

Part I. of the report points out the sources of irritation between the various interests, and shows that the present laws have resulted in an overlapping and at times contradictory system of dairy inspection by State and local authorities, and that dairymen and milk dealers have been subjected simultaneously to conflicting regulations from various cities and towns.

A summary is given of three previous investigations, — the two legislative investigations of 1910, and that of the Chamber of Commerce in 1915. A summary is also given of proposed legislation during the years 1910 to 1914, inclusive. Most of the legislative controversies have arisen over the manner in which these laws should be administered if enacted.

Part II. deals with the viewpoints of various interests. For the purpose of obtaining this information letters were sent to the Boston Chamber of Commerce, the State Grange, the Milk Consumers' League, the Milk and Baby Hygiene associations, the Massachusetts State Board of Agriculture, the State Department of Animal Industry, the health department of the city of Boston, the milk contractors and the Thoroughbred Cattle Breeders' Associations. A tabulation of the replies to these letters show that the interest may be divided into three groups.

Group A. — Dairy and agricultural interests, comprising the State Grange, the State Board of Agriculture, the State Department of Animal Industry and the Thoroughbred Cattle Breeders' Associations.

Group B. — Those concerned in the business aspects of the questions, the milk dealers and the Boston Chamber of Commerce.

Group C. — Those interested in milk from the health standpoint. The Milk Consumers' League, the Boston department of health and the Milk and Baby Hygiene Associations.

The general contention of Group A is that legislative agitation, natural economic conditions, increase in long distance transportation facilities, and low price of milk have tended to drive milk production out of the State. This group offered no remedial suggestions. The Thoroughbred Cattle Breeders' Associations, with the exception of the Holstein Breeders' Association, in answer to a direct question, state that they believe that the price of milk should be governed by the fat content. The general contention of Group B is that the present system of distribution cannot be greatly improved upon, but that the present competition between retail dealers is disastrous to the business, and that the lack of a graded product does not improve the situation. Some of this group believe that the official inspections should be centralized, and be administered preferably by the State Department of Health. In some respects Group C agrees with the contentions of Group B, particularly regarding centralized administration of the laws by the State Department of Health. The health department of the city of Boston believes that the city is very unjustly forced to carry out the dairy inspections for most of the other cities and towns comprising greater Boston, which they would not have to do, if this work were transferred to the State Department of Health.

Part III. is divided into four sections. Section A gives a summary of the conditions noted in the various inspection trips made by the members of the milk board. The general impression received was that Massachusetts dairies were found, on the whole, to be in very satisfactory sanitary condition, and the out-of-State dairies were somewhat below the standard of the Massachusetts dairies. This is particularly true of the Vermont and Quebec dairies. Section B gives a summary of the replies received from milk contractors, stating the places of production and of distribution of their milk supply, and a summary of their dairy inspections. The board is of the opinion, however, that the contractors' system of dairy inspection is not as efficient in many instances as their replies would lead us to believe, possibly due to the fact that the policy of using a local collecting agent as a dairy inspector gives the dealers themselves an erroneous impression

of the sanitary conditions under which the milk they purchase is produced. Section C deals extensively with the production of milk for Massachusetts, its increase, decrease and geographical fluctuations. This section points out the decrease of milk production in Massachusetts, the increase of milk brought in from other States, the increasing use of condensed milk in the home and of milk powders in bakeries. This section closes with general comments on milk production, and shows the importance of producing more milk in this State, also the value to the Commonwealth of the dairy industry.

Two charts are introduced, compiled from the United States Census report, showing that while dairy products in the United States are ranked fifth in value of certain farm products, they rank first in those same products in Massachusetts.

Section D discusses in general the influence of heat upon milk. The process of pasteurization as now carried out is substantially without influence upon the chemical composition of milk. This process is very efficient in reducing the bacterial content, but on account of the possibility of reinfection the State should control the operation of these plants.

Part IV. deals with the present official supervision of milk. Section A shows that this work is carried out by the State Department of Health, the Dairy Bureau of the State Board of Agriculture, the State Department of Animal Industry, the United States Department of Agriculture and by various local boards of health. Section B gives a summary of one of the appendices upon the status of local milk inspection, and shows that about 20 per cent. of the total population receives no protection from their local boards of health relative to milk. The balance receives some protection, but only 43 per cent. is adequately protected. If Boston is excluded from the list of cities and towns, 25 per cent. of the population receives no protection, and only 20 per cent. is adequately protected from possible dangers arising from the milk supply.

Part V. deals with the relation between cows' milk and the public health. In this part it is shown that the most important communicable diseases transmitted through milk are tuberculosis, diphtheria, scarlet fever, septic sore throat and typhoid fever. Tuberculosis may be transmitted by means of the cow or by means of the human beings handling the milk, but infections due to diphtheria, typhoid fever and septic sore throat are transmitted by human means. The amount of communicable disease transmission through milk has been overestimated, but such transmission occurs with sufficient frequency to demand public protection. To insure the safety of milk as a human

food two procedures of control are necessary: first, the cattle, — the methods of production and of distribution should be under inspection in order that the supply be pure, clean and fresh; and second, the product should be treated with application of heat in order to destroy all disease germs that may be present, whether they are of human or animal origin. This process should also be under official supervision.

Infant mortality is higher than it should be, considerable being undoubtedly due to the quality of the infant's food and to the method of its distribution. When mother's milk fails, modified cow's milk is the most common and best substitute, although it has inherent qualities that make it an imperfect food for infants. In order that it should be safe for this purpose it should be controlled by inspection and by pasteurization up to the point of delivery to the mother, and controlled after delivery by the education of the mother in hygienic methods. The nutritional value of milk is pointed out in this section, as it is in value one of our cheapest foods. There is a great economic waste at present of skimmed milk which is very highly nutritional.

In Part VI. the subject of grading is discussed, both from the bacteriological standpoint and from the standpoint of percentage composition. The report shows the value to the producer, dealer and public of selling milk by grades, which would, of course, command different prices. The public would learn that there are great differences in different grades of milk.

Part VII. deals with the experiences of other localities, and contains a digest of recent laws and regulations relative to milk in force in various States and municipalities in this country. The New York system of grading has been extensively studied from all angles by the milk board, and it is the opinion of the board that this system appears to be working in a satisfactory manner in the city of New York, and that its introduction in some form into the State of Massachusetts would be of benefit to all. It would divide the producers' milk into different grades, depending upon the character under which the milk was produced, where at present there is but one grade. This system, furthermore, would supply different grades of milk to the public, which could be purchased at prices varying according to the character of the milk. By a process of education the public would soon appreciate the differences between these grades, and the demand for the high-grade milk would increase. This would probably cause a competition among the dealers in the buying territory, and the producer, who could make the highest grade of milk would be able to sell at a better advantage than at present, when there appears to be only one dealer buying milk in his own community.

CONCLUSIONS FROM REPORT OF MILK BOARD.

Cow's milk is an invaluable article of diet.

In the interest of the public health its use as a food should be maintained and extended.

Healthy animals and proper methods are more important than equipment in the production of clean, wholesome milk.

Epidemics of disease have not infrequently been caused by raw milk, but the amount of communicable disease so transmitted is much less than has been often asserted.

Pasteurization.

Pasteurization or sterilization is the only practical method for insuring the safety of commercial milk.

No epidemic has ever been traced with certainty to pasteurized milk.

The present uncontrolled method of pasteurization does not furnish a satisfactory safeguard to the public.

To make certain the adequacy of the processes of sterilization or pasteurization the responsibility therefor should rest upon public health officials.

Employees in commercial pasteurizing plants should be subjected to routine physical examination.

Pasteurization should not be allowed to be used to conceal an inferior quality of milk.

Milk in the Possession of the Consumer.

Fresh milk has a greater food value than other milk.

Milk, while in the possession of the consumer, should be no less scrupulously cared for than while in the hand of the producer or dealer.

(a) It should be immediately placed in a cool place and kept there, duly protected, until used.

(b) All milk bottles received by the consumer should be washed with soap and hot water as soon as the milk has been removed, and should be kept clean until returned to the dealer.

(c) Milk bottles should never be used for anything but milk, as is provided for by statute.

Tuberculosis.

In addition to epidemic diseases the evidence is now conclusive that a very considerable proportion of tuberculosis in children is due to infection by the bovine type of tubercle bacilli taken into the body by drinking raw milk.

Bovine tuberculosis is prevalent to a dangerous degree in ordinary dairy herds.

Dairymen should attempt to eradicate tuberculosis from their herds, not only in the interest of public health, but also to improve the quality of their young stock.

Adequate pasteurization as effectively destroys tubercle bacilli as it does the germs of epidemic diseases.

Milk for Infant Feeding.

Cow's milk is decidedly inferior to mother's milk as a food for infants, but clean cow's milk is the best as well as the most common substitute for mother's milk.

Some part of our excessively high infant mortality rate is probably due to unwholesome qualities of the cow's milk furnished to infants. It is generally admitted, however, at present, by children's specialists and sanitarians, that the use of cow's milk regardless of quality furnishes only one among many factors in the total causes of infant mortality.

There appear to be some grounds for concluding that in some cities of this Commonwealth the inadequacy of the total supply of cow's milk for infants and young children is a more serious public health problem than any existing deficiencies in quality.

Existing Inspection.

The present laws for the supervision of milk production and distribution in Massachusetts gives ample authority to the cities and towns to protect their milk supplies in as stringent and thorough a fashion as they may see fit.

These laws make it mandatory upon cities and towns to carry out thorough dairy inspection in all dairies supplying milk for their consumption.

The present system of sanitary supervision of milk by local authorities is in the aggregate costing the people of the Commonwealth fully as much if not more than a complete, well-balanced, uniform system of control.

As these laws are carried out the practical results are: (1) That the inhabitants of many cities and towns receive no protection whatsoever, and the inhabitants of many other cities and towns receive protection at the expense of the taxpayers in neighboring cities. (2) Responsibility is divided and official friction between cities and towns is incurred. (3) The literal carrying out of the laws would result in

an inconceivable mass of overlapping inspections. (4) The producer, not having a fixed standard, owing to the changing and contradictory orders of local milk inspectors, is confused and discouraged.

State Control.

There is no law at present providing for State control of the milk supply of this Commonwealth relative to the public health.

The systematic dairy inspections instituted in this State by the State Department of Health, and subsequently carried on by local authorities, have been productive of improved dairy conditions and an improved milk supply, many producers having taken advantage of the opportunities of obtaining valuable information from the inspectors.

The clean milk contests of the State Board of Agriculture have been productive of much good among those producers who distribute milk of their own production direct to the consumer.

Milk production should be so supervised as to result in a maximum of cleanliness and safety with a minimum of interference with the milk industry.

Sale of Milk — Prices.

At the present prices, or even at considerably higher prices than those prevailing at present, milk is one of the most economical of foods.

There are no reasonable grounds for believing that the retail price of milk can be lowered.

Milk should be bought and sold on its merits, as determined by its chemical and bacteriological condition rather than by volume only. This should include higher price for higher fat content and higher price for low bacterial content.

Massachusetts Dairies.

Massachusetts dairymen must produce milk of a superior quality if they are to hold the confidence and patronage of the consumers in the Commonwealth.

As far as statistics are available it would appear that Massachusetts dairymen produce more milk per cow than dairymen of neighboring States and countries, and produce it under generally better conditions as to cleanliness.

Nevertheless, milk production in Massachusetts has rapidly decreased since 1890.

To supply the steadily increasing population of the State with milk and cream, the large dealers of Boston and other cities have been

going to points in other States (principally Maine, Vermont and New Hampshire) and the Provin'ce of Quebec to secure adequate supply.

The great distance of some of these points, together with careless handling and slow transportation, tend to place a large amount of milk on the Massachusetts market which is less desirable than milk produced near by.

Sufficient milk to supply Massachusetts people could be produced within the borders of the State if the thousands of acres of naturally good dairy lands now lying idle were stocked with milch cattle.

The principal reason for the decline in dairying in this State is the low price paid to producers.

Other causes are the increase in the cost of cows, grain, building materials, labor, and the improved methods demanded by State and municipal authorities, as well as constant legislative agitation for several years.

Milk can be bought at lower prices at out-of-State points than Massachusetts farmers can produce it with profit.

Milk transportation rates are lower in proportion for long haul than for short haul.

Massachusetts dairymen have been in general subjected to a more rigid enforcement of dairy rules and regulations than out-of-State producers of milk.

Massachusetts dairymen furnishing milk for near-by consumption must compete with an inferior grade of milk produced out-of-State, which has been freed from disease germs by pasteurization, and has been rendered macroscopically acceptable to the consumer by clarifying processes to remove filth originally introduced by slovenly dairy methods.

Owing to the fact that in Massachusetts there are scarcely any country-receiving milk stations, milk produced in Massachusetts must be marketed more quickly than milk produced out-of-State which has been clarified and pasteurized before being shipped.

It would be an advantageous practice if Massachusetts dairymen would label State-raised milk as Massachusetts milk, particularly if a State authority could, after examination, permit its sale as a distinct grade of milk.

The final draft of the act relative to the inspection of milk, submitted by the State Department of Health after numerous conferences with representatives of local boards of health and of the producers, is as follows: —

AN ACT RELATIVE TO THE INSPECTION OF MILK.

SECTION 1. The state department of health after public hearings is hereby authorized to frame reasonable rules and regulations relative to the sanitary conditions of the production, transportation, care, handling, storage and distribution of milk, which rules and regulations shall take effect after the approval of the governor and council.

SECTION 2. The state department of health may by its rules and regulations establish grades of milk based upon the butter fat content, sanitary conditions of dairies, and the bacterial content of milk before and after pasteurization, and shall fix methods of pasteurization. After the establishment of such grades, all milk sold or offered for sale within the commonwealth, if graded, shall be graded according to the standards established by the state department of health rules and regulations. The board of health of any city or town may require all milk offered for sale within their jurisdiction to be so graded whenever the interests of the public health shall in their judgment render it necessary and advisable to do so.

SECTION 3. No license under the provisions of chapter four hundred and forty-three of the acts of the year nineteen hundred and nine, and no permit under the provisions of chapter seven hundred and forty-four of the acts of the year nineteen hundred and fourteen, shall be issued to any person, firm or corporation who has not complied with the rules and regulations established under the provisions of section one.

SECTION 4. Boards of health of cities and towns may require pasteurization, in accordance with the methods as established under section two, of any or all milk offered for sale or processed within their jurisdictions, whenever the interests of the public health shall render it necessary or desirable to do so, but no repasteurized milk shall be sold or offered for sale within the commonwealth.

SECTION 5. Whoever, himself or by his servant or agent, violates any of the rules or regulations established under the provisions of this act or violates any of the provisions of this act shall be punished by a fine of not more than one hundred dollars.

SECTION 6. Boards of health of cities and towns shall enforce the provisions of this act and all rules and regulations established hereunder. If the board of health of any city or town shall neglect or refuse to enforce the provisions of

this act, or the rules and regulations established hereunder, the state department of health shall have the power to enforce all such provisions, rules and regulations, and the cost of the same shall be paid into the treasury of the commonwealth by such city or town.

SECTION 7. If, after thirty days' notice in writing by the state department of health, the board of health of any city or town refuses or neglects to enforce the provisions of this act and the rules and regulations established hereunder, said city or town shall be subject to a penalty of not less than ten dollars per day for each day's failure so to comply, said penalty to be enforced by appropriate action brought in the name of the commonwealth by the attorney-general on complaint of the state department of health: *provided*, that if the board of health of any town shall by resolution filed with the state department of health, not less than ninety days prior to the first day of June of any year, request the state department of health to take over and exercise the powers and perform the duties conferred or imposed upon local boards of health by the provisions of chapter seven hundred and forty-four of the acts of the year nineteen hundred and fourteen, or by the provisions of this act, or by the rules and regulations established hereunder, the state department of health shall take over and exercise such powers and perform such duties for such year, and such towns shall not be liable to the penalty imposed by this section, but the cost of the same shall be paid into the treasury of the commonwealth by such city or town.

SECTION 8. The sum of ten thousand dollars is hereby appropriated to the state department of health for the enforcement of the provisions of this act.

SECTION 9. This act shall take effect on the first day of June, nineteen hundred and sixteen.

RÉSUMÉ OF COMMUNICABLE DISEASES FOR JANUARY, 1916.

Prevalence. — There was a large increase in the total number of cases of communicable diseases reported in the month of January, 1916. During the month of January, 1915, there were 6,156 cases reported to this Department, while during the month just closed there were 7,626 cases reported. In comparison with the month of Decem-

ber, 1915, there was an increase of 2,224 reported cases of communicable diseases. This great increase of communicable diseases has been due to the greater prevalence of measles, scarlet fever, whooping cough, diphtheria and tuberculosis.

Mortality. — The striking feature of the January mortality returns is the number of deaths from diphtheria, measles, scarlet fever and whooping cough.

Diphtheria continues to take its enormous toll of lives. The fact that there were 84 deaths during the month just closed should call our attention to a renewed effort to overcome this disease. The fatality rate has been 8. This is not an unusually high rate for this disease.

Measles and whooping cough have caused 49 deaths during the month. The public and even a great many physicians still persist in classifying these two diseases as "harmless." When you consider that over 3 per cent. of the whooping cough cases and almost 1 per cent. of the measles cases were fatal last month, it does not seem to require any further comment. The subject of the control of these two diseases is a very live public health problem. All public health workers should co-operate in working out some rational method to control these diseases.

Scarlet fever did not cause as many deaths during January as it did during the same month last year, but it did cause almost four times as many deaths last month as it did during the month of December, 1915. This does not give us any index to the amount of damage done to the 1,160 persons who suffered from this disease during January, for very often the after-effects of scarlet fever are much more serious than the disease itself.

Typhoid fever continues to show a very high fatality. While there was a decrease in the number of cases last month, 18 deaths were reported. This makes a fatality rate of 16.1, which is a very high rate.

Distribution. — The increase in the number of cases of the various diseases noted above is interesting. Measles, scarlet fever, whooping cough, diphtheria and typhoid fever have been present in unusual amounts in various cities and towns. Tuberculosis reports are beginning to show distinctly the effect of the dispensaries. During January, 1916, there was an increase in reported cases over the same month last year of 220.

Measles has been epidemic in various parts of the State. In Chelsea, Lynn, Dennis, Saugus and Winthrop it has been particularly prevalent, while Canton, Wrentham, Lawrence and Webster are having an unusual number of cases.

Scarlet fever has been present in unusual amounts in the following cities and towns: Cambridge, Dedham, Hingham, Milton, Quincy, Lynn, Arlington, Medford, Methuen, Worcester, Leominster, Northampton and Springfield.

Whooping cough is present in almost every part of the State. Some of the cities and towns where it is most prevalent are as follows: Mansfield, Cambridge, Melrose, Winthrop, Andover.

Diphtheria has been more prevalent in some places during January than it was in December. Many of the reported cases are not in persons ill with the disease, but are "carriers" detected during the course of routine examination. Diphtheria remains an important factor in the morbidity reports from the following cities and towns: Lawrence, Lowell, Somerville (on account of its fatality), Leominster and Springfield.

Typhoid fever was not reported in unusual amounts from any particular part of the State. The interesting thing about this disease during the month was the fact that it had an unusually high fatality; 112 cases were scattered through various parts of the State and caused 18 deaths.

Epidemics. — Measles and whooping cough have been epidemic in a number of places. The State district health officers have investigated a number of these outbreaks, and in almost every case it has been shown that the disease was spread through the medium of the public school. Material is being collected for a study of these two diseases, with a hope that we may be able to suggest a rational plan of controlling them.

Rare Diseases. — During the month there have been two cases of trichinosis reported, one from Worcester and one from Brockton. A single case of actinomycosis was reported from Lowell. This city also had the distinction of reporting a single case of smallpox in the State. This case was imported from Canada.

RETURNS OF CASES AND DEATHS FROM DISEASES
DECLARED BY THE STATE DEPARTMENT OF
HEALTH TO BE DANGEROUS TO THE PUBLIC
HEALTH.

[Under the provisions of section 52, chapter 75, Revised Laws, and chapter 210, Acts of 1913.]

[illegible]

REPORT UPON THE WORK OF THE BACTERIOLOGICAL LABORATORY FOR THE MONTH OF JANUARY, 1916.

The following gives the total number of bacteriological examinations made in the laboratory of the State Department of Health during the month of January, 1916: —

	Number of Examinations.	DIAGNOSIS.		RELEASE.	
		Positive.	Negative.	Positive.	Negative.
Diphtheria, ...	1,848	192	1,318	87	251

	Number of Examinations.	Positive.	Negative.	*Atypical.
Tuberculosis, ...	255	67	188	
*Typhoid fever (Widal test), ...	427	19	401	7
Typhoid fever (culture test), ...	16	1	15	
Miscellaneous, ...	70			

Total number of examinations made, 2,616.

The following gives the total number of biological products and diagnostic outfits distributed by the State Department of Health during the month of January, 1916: —

Biological Products.

Diphtheria antitoxin: —

12,000 units (special for the Boston City Hospital), ...	142 bottles.
6,000 units (special for the Boston City Hospital), ...	72 bottles.
3,000 units, ...	4,349 bottles.
2,000 units (special for the Boston City Hospital), ...	108 bottles.
1,500 units, ...	1,016 bottles.
750 units, ...	669 bottles.
Smallpox vaccine, ...	4,008 tubes.
Typhoid vaccine, ...	4,603 ampoules.
Antimeningitis serum, ...	113 bottles.
Silver nitrate solution, ...	854 ampoules.

Diagnostic Outfits.

Culture tubes, ...	2,336
Sputum bottles, ...	368
Widal outfits, ...	471
Bile outfits, ...	37
Malaria outfits, ...	6

FOOD AND DRUGS.

The following tables present the results of the laboratory examinations of samples of food and drugs collected during the month of January, 1916:—

The cities and towns in which samples were collected were: Attleboro, Barnstable, Boston, Brookline, Chelsea, Everett, Fall River, Framingham, Lowell, Lynn, Malden, Mansfield, Natick, New Bedford, Norton, Pepperell, Pittsfield, Plymouth, Quincy, Saugus, Stoneham, Taunton and Waltham.

SUMMARY OF ANALYSES.

ARTICLES EXAMINED.	Number found to be of Good Quality.	Number adulterated or varying from the Legal Standard.	Total.
Butter, ...	1	1	2
Canned goods, ...	2	—	2
Clams and oysters, ...	8	1	9
Coffee, ...	1	—	1
Condimental sauces, ...	3	1	4
Confectionery, ...	2	—	2
Cream, ...	1	—	1
Drugs, ...	25	6	31
Eggs, ¹	11	5	16
Fish, ...	2	—	2
Flavoring extract:—			
Lemon, ...	1	1	2
Honey, ...	1	—	1
Horse radish, ...	1	—	1
Jams and jellies, ...	8	2	10
Lard, ...	7	—	7
Malt liquors, ...	1	—	1
Maple sugar, ...	—	1	1
Maple syrup, ...	2	4	6
Meat products:—			
Hamburg steak, ...	3	—	3
Mincemeat, ...	4	—	4
Sausage, ...	96	18	114
Milk, ...	143	39	182
Olive oil, ...	8	1	9
Scallops, ...	20	8	28
Shrimp, ...	1	—	1
Syrup, ...	1	—	1
Vinegar, ...	1	—	1
Totals, ...	354	88	442

¹ Taken from cold storage with the exception of 4.

PROSECUTIONS FOR VIOLATIONS OF THE LAW RELATING TO FOOD AND SLAUGHTERING.

Thirty-two convictions were secured during the month of January, 1916, for the sale of adulterated food and for violation of the slaughtering laws, as follows:—

NAME OF DEFENDANT.	Place.	Character of Article sold or Nature of Offence.
Clarabel Bearse, ...	South Hyannis, . .	Milk (total solids, 12.08). ¹
James Murray, ...	Plymouth, ...	Milk (total solids, 11.18). ¹
Morris Brown, ...	Boston, ...	Eggs (decomposed). ²
Morris Brown, ...	Boston, ...	Eggs (decomposed). ²
Morris Brown, ...	Boston, ...	Eggs (decomposed). ²
Lewis Cohen, ³	Boston, ...	Eggs (decomposed). ²
Freedman-Stahl Baking Co., ³	Roxbury, ...	Eggs (decomposed). ²
Israel Garman, ³	Boston, ...	Eggs (decomposed). ²
Israel Garman, ³	Boston, ...	Eggs (decomposed). ²
North American Egg Co., . .	Everett, ...	Eggs (decomposed). ⁴
Benjamin Seliger, ³	Boston, ...	Eggs (decomposed). ²
Benjamin Seliger, ³	Boston, ...	Eggs (decomposed). ²
Lewis Silverstein, ³	Boston, ...	Eggs (decomposed). ²
David Stahl, ³	Boston, ...	Eggs (decomposed). ²
David Stahl, ³	Boston, ...	Eggs (decomposed). ²
Matthew Henihan, ...	Jamaica Plain, . .	Cider (contained benzoic acid).
James Tzacoyianes, ...	Allston, ...	Cider (contained benzoic acid).
Henry H. Berlo, ...	South Boston, . .	Sausage (contained starch in excess of 2 per cent.).
Ambrose Claus, ...	Roxbury, ...	Sausage (contained starch in excess of 2 per cent.).
Herbert Close, ...	Pittsfield, ...	Sausage (contained starch in excess of 2 per cent.).
John Coleise, ...	Roxbury, ...	Sausage (contained starch in excess of 2 per cent.).
John Eberwein, ...	Pittsfield, ...	Sausage (contained starch in excess of 2 per cent.).
Myles J. Sweeney, ...	Boston, ...	Sausage (contained starch in excess of 2 per cent.).
John T. Whatmough, ...	Taunton, ...	Sausage (contained coloring matter).
Arthur Whatmough, ...	Taunton, ...	Sausage (contained coloring matter).
Donat Wiedeman, ...	Boston, ...	Sausage (contained starch in excess of 2 per cent.).
A. C. Brainerd, ...	Great Barrington, .	Slaughtering without inspector present.
Michael DiCarlo, ...	Lynn, ...	Selling unstamped meat.
Frank Heath, ...	Lee, ...	Illegally stamping carcass.
Andrew Koslowski, ...	Webster, ...	Selling uninspected meat of a cow slaughtered while in a diseased condition.
DeWitt Smith, ...	Great Barrington, .	Failure to comply with rules and regulations of the State Department of Health.
James A. Smith, ...	Great Barrington, .	Slaughtering without inspector present.

¹ Watered.² Appealed.³ Prosecution made in co-operation with the city of Boston department of health.⁴ Defaulted.

Fines imposed, \$2,046.

LIST OF ADULTERATED OR IMPROPERLY LABELED FOODS FOR JANUARY, 1916.

Number of Sample.	CHARACTER OF SAMPLE.	Name of Manufacturer or Wholesaler.	Results of Analyses.
29469	Essence of lemon, .	Lowell Pharmacy, Lowell, ...	Deficient in lemon oil.
3653-T	} Golden Tree Syrup, .	New England Maple Syrup Company, Boston, .	Per cent. of ingredients not stated on label.
3657-T			
29430	Superior Brand Pure Syrup, ...	The De Merritt Company, Somerville, ...	Per cent. of ingredients not stated on label.
29441	} Imperial Pie Fruits, .	H. G. Gutches, Port Byron, N. Y., ...	Contained sulphurous acid.
2495-T		Eastern Supply Company, Providence, R. I., .	Contained benzoic acid.
2533-T			
29338	Tomato sauce, ...		

COLD STORAGE OF FOOD.

Articles in Cold Storage condemned upon Physical Examination as Unfit for Food.

Date.	ARTICLES.	Weight (Pounds).	Reasons.	Disposition.
1916.				
January 19	Mutton, ...	108	Decomposed, . . .	Rendered.
January 19	Moose meat, . . .	30	Raneid, ...	Rendered.
January 19	Lamb, ...	15	Raneid, ...	Rendered.
January 19	Sweetbreads, . . .	9	Raneid, ...	Rendered.
January 19	Goose, ...	12	Raneid, ...	Rendered.
January 19	Ducks, ...	19	Raneid, ...	Rendered.
January 19	Chickens, ...	60	Raneid, ...	Rendered.
January 26	Broken-out eggs, .	225	Decomposed, . . .	Rendered.
Total, ...		478		

SLAUGHTERING.

Date.	ARTICLES.	Weight (Pounds).	Reasons.	Disposition.
1916.				
January 19	Veal, ...	28 $\frac{3}{4}$	Immature, ...	Rendered,
January 24	Beef, ...	75	Parturient apoplexy, .	Buried.
Total, ...		103 $\frac{3}{4}$		

ARTICLES OF FOOD PLACED IN COLD STORAGE DURING THE MONTHS OF OCTOBER, NOVEMBER AND DECEMBER, 1915.

Eggs, case (dozens), ¹	397,590
Eggs, broken out (pounds), ...	221,177
Butter (pounds), ...	1,950,467
Poultry (pounds), ...	7,478,331
Game (pounds), ...	379,441
Meat, fresh (pounds), ...	15,520,020
Meat products, fresh (pounds), except in process of manufacture, .	264,430
Fish, fresh food (pounds), ...	6,475,836
Total, ...	32,687,292

QUANTITIES OF BUTTER AND EGGS HELD IN COLD STORAGE ON JAN. 1, 1916.

Eggs, case (dozens), ¹	6,179,490
Eggs, broken out (pounds), ...	135,858
Butter (pounds), ...	14,297,645
Total, ...	20,612,993

¹ The net contents of one dozen eggs weighs approximately one pound.

MASSACHUSETTS STATE DEPARTMENT OF HEALTH.

Commissioner, ALLAN J. McLAUGHLIN, M.D.

Division of Administration,	.	.	.
Division of Sanitary Engineering,	.	.	Director and Chief Engineer. X. H. GOODNOUGH, C.E.
Division of Communicable Diseases,	.	.	Director, E. R. KELLEY, M.D.
Division of Water and Sewage Laboratories,	.	.	Director and Chemist, H. W. CLARK.
Division of Biologic Laboratories,	.	.	Director and Pathologist, MILTON J. ROSENAU, M.D.
Division of Food and Drugs,	.	.	Director and Analyst, HERMANN C. LYTGOE.
Division of Hygiene,	.	.	Director, SELSKAR M. GUNN.

Public Health Council.

ALLAN J. McLAUGHLIN, M.D., *Chairman.*

WM. T. SEDGWICK, Ph.D.	JOSEPH E. LAMCUREUX, M.D.
GEORGE C. WHIPPLE, S.B.	WM. J. GALLIVAN, M.D.
DAVID L. EDSALL, M.D.	JOHN T. WHEELWRIGHT.

State District Health Officers.

The Southeastern District,	.	.	.	ADAM S. MacKNIGHT, M.D., Fall River.
The Eastern District,	.	.	.	MERRILL E. CHAMPION, M.D., Wollaston.
The Northeastern District,	.	.	.	LYMAN A. JONES, M.D., Swampscott.
The North Midland District,	.	.	.	CHARLES E. SIMPSON, M.D., Lowell.
The South Midland District,	.	.	.	WILLIAM W. WALCOTT, M.D., Natick.
The Wachusett District,	.	.	.	LEWIS FISH, M.D., Fitchburg.
The Connecticut Valley District,	.	.	.	JOHN S. HITCHCOCK, M.D., Northampton.
The Berkshire District,	.	.	.	STANLEY H. OSBORN, M.D., North Adams.

PUBLIC HEALTH BULLETIN

ISSUED MONTHLY

BY THE

STATE DEPARTMENT OF HEALTH
OF MASSACHUSETTS



MARCH, 1916

Vol. 3, No. 3

ALLAN J. McLAUGHLIN, M.D., *Commissioner*

The Common Health of the Commonwealth

Entered as Second-class Matter Oct. 26, 1914, at the Post Office at Boston, Mass.,
under the Act of Aug. 24, 1912.

CONTENTS.

	PAGE
New Vital Statistics Tables, ...	49
State Health Departments fighting Cancer, ...	49
Pneumonia, ...	51
Baby Week, ...	53
Résumé of Communicable Diseases for February, 1916, ...	53
Returns of Diseases and Deaths for February, 1916, ...	55
Milk-borne Typhoid Fever at Northbridge, October, 1915, ...	56
Report of the Bacteriological Laboratory, ...	57
Food and Drugs, ...	58
New Legislation:	
An Act relative to the Annual Report of Deaths required to be made to the State Department of Health by Boards of Health in Certain Towns (general act, chapter 53), ...	60
An Act requiring Local Boards of Health to notify the State Department of Health of Cases of Dangerous Diseases (general act, chapter 55), ...	60
An Act relative to Claims of Cities and Towns for the Care of Tuberculosis Cases (general act, chapter 57), ...	60
An Act relative to the False Stamping and Labelling of Receptacles containing Articles of Food and Misrepresentation in the Sale of Food Products (gen- eral act, chapter 58), ...	61
Cases and Deaths from Diseases Dangerous to the Public Health for Cities and Towns, January, 1916, ...	62
Notice of Competitive Examination for State District Health Officers, ...	66

NEW VITAL STATISTICS TABLES.

BEGINNING with the present issue of the bulletin it will be possible for us to publish fairly accurate and complete returns of cases and deaths for the whole Commonwealth. The desirability of this kind of table, which will be found in another part of the bulletin, has been evident for some time. The difficulty in securing the data in complete form in time to be of service has been hard to overcome. It has only been possible through the hearty co-operation of the office of the Secretary of State, and particularly Mr. Herbert H. Boynton, deputy secretary of the Commonwealth.

The information contained in these tables should be of great practical value. With the population, reported cases and deaths we have the fundamental data upon which to judge the progress of the various diseases. The division of the various cities and towns into groups according to population will lend itself to useful comparison of health conditions in cities and towns of approximately equal size. The division of towns under 2,500 population will give us an approximate idea of the real morbidity and mortality of rural regions. This unit of 2,500 population is adopted to coincide with the classification made by the United States Census Bureau as being a rural community. While it is not entirely satisfactory, it is surely more representative than using either 8,000 or 10,000 as a unit. If the smaller towns will co-operate in getting their death returns in promptly this part of the table will be correspondingly increased in value.

STATE HEALTH DEPARTMENTS FIGHTING CANCER.

AMONG the many agencies now active in the campaign against cancer several of the State departments of health are making notable efforts to spread the gospel of hope which is found in the early recognition of the danger signals of the disease and its prompt and competent treatment. The health authorities of Massachusetts, New Hampshire, Ohio, Indiana, Michigan, Virginia, North Carolina, Kentucky, West Virginia and Idaho have been especially active in disseminating trustworthy information and advice about the prevention and cure of cancer.

The New York State Health Department, under the leadership of Commissioner Hermann M. Biggs, is the latest to enlist its forces in the war against cancer. The entire March number of "Health News," the Department's monthly bulletin, is devoted to consideration of the nature, prevalence and treatment of malignant disease, with the object of creating among the people "a healthy vigilance which leads to the taking of expert advice on the first appearance of danger signals."

"There is nothing that any one of us can do to prevent the occurrence of cancer except in avoiding certain specified causes of local irritation," says "Health News" in an editorial which opens the discussion. "On the other hand, there is incontrovertible testimony as to the probability of its cure in a large percentage of cases if taken in time. That cure consists in the complete surgical removal of the growth at the earliest possible moment. Early diagnosis, early removal — there is not now nor has there ever been any other successful method of curing the disease."

The leading article in this special issue of the Health Department's magazine is by Dr. Francis Carter Wood, director of cancer research at Columbia University. Additional papers are contributed by other notable figures in the scientific world, including Frederick L. Hoffman, LL.D., statistician of the Prudential Insurance Company and chairman of the statistical advisory board of the American Society for the Control of Cancer, and Dr. Harvey R. Gaylord, director of the New York State Institute for the Study of Malignant Disease.

Writing on "What People should know about Cancer," Dr. Wood endeavors to dispel some of the mistaken popular notions which have grown up regarding this disease. He disposes of the stories regarding "cancer villages," "cancer houses" or "cancer belts," briefly showing that the occurrence of a number of cases in a house usually is due to the fact that the occupants are old people; that "cancer villages" usually are small towns from which most of the young people have emigrated, and that in like manner "cancer belts" are found to be sections of the country where the population is distinctly aged.

The idea that cancer is hereditary is likewise made light of by Dr. Wood, and he declares that there is no reason whatever to worry because one member of a family has suffered from the disease. "It does not at all follow that any other member of a family will have it," says Dr. Wood, and quotes from the laws governing statistics to show that if there are two or more cases in a family it is due purely to chance.

The quackery which is practiced by unscrupulous people in the

treatment of cancer is severely censured both by Dr. Biggs and by Dr. Wood. It is made perfectly plain that cancer is comparatively easy to cure if it can be taken in time. The bulletin declares that if the simple truth is thoroughly established that cancer begins in a comparatively innocent form and, in most instances in a recognizable form, it can be successfully combated. Dr. Hoffman in his paper emphasizes "the supreme importance of the earliest possible diagnosis and the incalculable value of the earliest possible medical and surgical treatment." Dr. Wood puts stress on the declaration that if the disease can be diagnosed in its early stage the cancer can be removed with very great possibilities as to permanent cure. "The Commissioner of Health takes this opportunity," says Dr. Biggs, "to warn the people of the State against the expenditure of money, — often ill-afforded, — the raising of false hopes, and, above all, the waste of precious time through the use of alleged cancer cures and consultation with their unscrupulous purveyors."

In anticipation of a popular demand for information regarding cancer the Massachusetts State Department of Health is prepared to send a pamphlet entitled "What you should know about Cancer" to any citizen who may request it.

PNEUMONIA.

TEN per cent. of the deaths in the United States result from pneumonia. It is estimated that during the past thirty days this rate has been doubled in some sections. Tuberculosis and heart disease, each causing one-ninth of all fatalities, are the only diseases which outrank pneumonia among the legion of the men of death, but in certain cities pneumonia is steadily increasing and even has surpassed the mortality from tuberculosis. Seventy per cent. of all cases occur between December and May. It is distinctly a cold-weather infection, seemingly brought by wintry blasts, but especially prevalent during the winter season only because its victims are rendered more susceptible at that time by exposure, debilitating influences and the presence of predisposing infections.

Pneumonia principally affects those at the extremes of life, but no age is exempt. It is invariably a germ disease. The predisposing and exciting organisms are so numerous that it would be futile to attempt their enumeration. Many of them are constantly present in the mouths and throats of healthy persons, and it is only through the aid

which we unwittingly extend to them that they are transformed from harmless organisms to one of man's most powerful enemies.

The presence of other diseases is the great predisposing cause of pneumonia. They prepare the soil for invasion. Holding first rank in this category is influenza, the increased incidence of pneumonia at this time being largely due to the present epidemic of la grippe. Individuals suffering from this infection are peculiarly susceptible to respiratory complications, and should properly observe every hygienic rule. Inflammation of the upper air passages, pharyngitis, bronchitis and tonsillitis often predispose to the development of the disease, particularly among the aged and infirm. The acute contagious diseases of childhood, more especially measles and whooping cough, frequently prepare the way for pneumonia. Any one who through neglect or carelessness permits the spread of these infections is therefore open to the severest condemnation. Exhausting disease of whatever nature is often sufficient to so reduce our resistance that we are unable to cope with organisms which should be easily overcome, and hence predisposes to the infection.

Debility, either temporary or chronic, developing from any cause, increases susceptibility. Because of this the disease most often attacks those at the extremes of life. Among debilitating influences must be mentioned cold, exposure to penetrating winds and the chilling of body surfaces as a result of wetting. The combination of lack of food and fatigue proves particularly disastrous during the winter season, and is a condition to be avoided whenever possible. Bad housing, mental or physical harassment and overwork are alike the advance agents of the infection. Overcrowding in street cars, theatres and other public places is unquestionably in part responsible for the spread of pneumonia in cities, as far greater opportunity is thus offered for the dissemination of the predisposing diseases through indiscriminate coughing and other means of droplet infection, as well as the directly injurious effects which inevitably result from exposure to such environment. The overheating of rooms is also seemingly harmful. Promiscuous expectoration may be, and probably is, a factor in infection, and consequently should be avoided by every citizen. A remaining most important agent should be mentioned, — alcohol. It is in truth the handmaiden of pneumonia, and there is none more certain or more sure of success, especially if liberally and continuously used.

While the foregoing facts constitute in part our knowledge of the reasons for the widespread dissemination of an infection which carries with it a mortality of from 10 to 30 per cent., it should be remembered

that our scientific data are not yet complete. There are problems connected with immunity, predisposition and the occurrence of epidemics which are yet to be solved. It is known that pneumonia frequently attacks those who are perfectly well, and who apparently have observed every hygienic rule. Whether this is due to the increased virulence of the organism or to other causes is unexplained. It is, however, recognized that avoidance of the factors so briefly enumerated will in large part diminish individual susceptibility and therefore the incidence of the disease.

BABY WEEK.

BABY week has come and gone. It is impossible to say just how many cities and towns in Massachusetts observed the week in some manner. In many places exhibits were held and a series of lectures given.

The requests which came to the State Department of Health for lectures, exhibits and literature far exceeded the available supply.

An effort was made to make the Child Welfare Exhibit of the Department reach as far as possible. It was, therefore, divided into three parts which were shown in some of the large retail stores of Boston.

The members of the State Department of Health gave about fifty lectures in all during the week. The aggregate attendance at all these lectures was nearly 8,000; the average attendance, over 150.

RÉSUMÉ OF COMMUNICABLE DISEASES FOR FEBRUARY, 1916.

Prevalence. — There has been a marked decrease in the number of communicable diseases reported to this Department during February. During January, 1916, there were 5,143 reports of cases received, while in the month just closed there were 3,984. As compared with February, 1915, there was a slight increase, due to the presence of an unusual amount of measles and whooping cough. The decrease in the communicable diseases has been general over the entire State.

Mortality. — The preventable diseases continue their systematic slaughter. Diphtheria scored 49, whooping cough 20, scarlet fever

17, and measles 16 deaths during February, — to say nothing of the 328 lives taken by tuberculosis.

Diphtheria has manifested some hopeful signs, the fatality rate being 6.8 per hundred cases during February, while it was 8 per hundred cases during January. It is to be hoped that this is not an accident, but is due to better reporting, earlier diagnosis and prompt administration of antitoxin. A combination of Massachusetts parents, physicians and public health officials can stamp out diphtheria.

Scarlet fever seems to be less virulent. The fatality for February, 1916, is 2.2 per cent., while for the same month last year it was 4.9 per cent.

Whooping cough and measles continue to present the most difficult problems. These diseases are accepted by the public as harmless, their prevention has been proven difficult by experience and many health officers have given up the problem as insoluble. These two infections caused a total of 36 deaths last month. While the problem is a difficult one, it seems that we should be making some serious efforts to prevent the unhindered spread of these diseases. In many cities and towns they are practically ignored.

Distribution. — While there has been a general decrease in the communicable diseases in all parts of the State, in certain communities a few of the infections are unusually prevalent. In the following cities and towns there has been a decrease in the number of cases of measles: Chelsea, Lawrence, Lynn, Salem, Saugus, Winthrop and Webster, while in Newton, Lowell and Fitchburg this disease seems to be on the increase.

Diphtheria has shown a gratifying decrease in the number of reported cases. This is true in comparison with last year as well as in comparison with the month of January. There has been a decrease in the number of cases in the following cities: Cambridge and Fitchburg. In Lowell, Haverhill, Leominster and Lynn there has been a slight increase in the number of cases.

Scarlet fever has decreased in almost all of the cities and towns where it was unusually prevalent last month. This is true in Cambridge, Worcester, Northampton and Lynn. In the last-named city, while there has been a decrease the number of cases still remains above the "normal average." Brookline also has an unusual number of cases.

Whooping cough is still distributed widely over the State; however, there has been a decrease in the total number of cases, both as compared with last month and with the same month last year. There has been considerable decrease in the following cities and towns:

Cambridge, Mansfield and Melrose. There has been an increase in Brookline in whooping cough.

Tuberculosis continues to show the influence of the dispensaries in the increased number of cases reported each month.

Typhoid fever has shown a remarkable decrease in the number of cases reported. During February, 1915, there were 91 cases, while during the month just closed there were but 39. The epidemic reported in last month's bulletin at Fall River has been entirely controlled by the prompt action of the local board of health.

Epidemics. — There have been no epidemics during the course of February.

Rare Diseases. — During February there have been reported 2 cases of anthrax, 1 at Peabody and 1 at Worcester; 3 cases of pellagra, 1 in Boston and 2 in Danvers; and 5 cases of trichinosis, 2 in Boston, 2 in Worcester and 1 in Newton.

RETURNS OF CASES AND DEATHS FROM DISEASES DECLARED BY THE STATE DEPARTMENT OF HEALTH TO BE DANGEROUS TO THE PUBLIC HEALTH.

[Under the provisions of section 52, chapter 75, Revised Laws, and chapter 210, Acts of 1913.]

DISEASES.	WEEK ENDING —									
	FEB. 5.		FEB. 12.		FEB. 19.		FEB. 26.		TOTAL.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Anterior poliomyelitis, ...	3	—	—	—	—	—	—	—	3	—
Anthrax, ...	—	—	—	—	1	—	1	—	2	—
Cerebro-spinal meningitis, . . .	3	2	3	3	6	2	7	4	19	11
Chicken pox, ...	142	—	138	—	128	—	120	—	528	—
Diphtheria, ...	208	17	186	14	175	10	149	16	718	57
Dysentery, ...	—	—	1	—	—	—	—	—	1	—
German measles, ...	4	—	9	—	10	—	3	—	26	—
Malaria, ...	—	—	1	—	—	—	—	—	1	—
Measles, ...	438	4	427	4	486	3	462	6	1,813	17
Mumps, ...	37	—	31	—	28	—	36	—	132	—
Ophthalmia neonatorum, ...	46	—	35	—	38	—	51	—	170	—
Pellagra, ...	—	—	1	—	—	—	2	1	3	1
Scarlet fever, ...	214	5	213	3	177	8	174	1	778	17
Septic sore throat, ...	2	1	5	—	1	—	6	—	14	1
Tetanus, ...	—	—	1	1	1	—	—	—	2	1
Trachoma, ...	—	—	—	—	1	—	—	—	1	—
Trichinosis, ...	1	2	3	—	—	—	1	—	5	2
Tuberculosis, pulmonary, or not classified, ...	160	68	182	94	140	65	151	78	633	305
Tuberculosis, other forms, . . .	14	12	10	8	10	8	11	13	45	41
Typhoid fever, ...	12	2	10	1	10	1	7	2	39	6
Whooping cough, ...	170	4	206	6	180	6	213	4	769	20

MILK-BORNE TYPHOID FEVER AT NORTH-BRIDGE, OCTOBER, 1915.

This epidemic of typhoid fever in Northbridge illustrates the necessity for caution in making an epidemiological diagnosis. Polluted river water was regularly introduced into the town mains for fire purposes. A history of a fire within the period of incubation of typhoid fever, plus the wide distribution of cases, pointed to water as the carrier of the infection. A careful analysis of the milk supply accounted for every case. Even the six cases not receiving milk directly from the infected dairy had been subjected to the infection by the exchange of milk. These cases developed too soon to have been secondary infections.

History. — The last reported case of typhoid fever in Northbridge had been in August, 1915. From October 14 to October 30, 22 cases were reported.

District Health Officer's Investigation. — Conference was had with local board of health and local physicians. Cases were found to be limited to mill village of Rockdale, a community of about 2,000 inhabitants, largely foreign.

Water Supply. — For fire purposes Blackstone River is pumped through village mains. Every one in town is supposed to know this and not drink or draw water until the Blackstone River water has been shut off and the mains flushed. A history of a fire fifteen days before the first reported case of typhoid fever led to an investigation by the engineering division. Examinations of the water from the mains did not give any indications of the presence of objectionable bacteria in the village mains.

Milk Supply. — All the dairies were visited, sanitary conditions inspected, distribution of milk determined and illness of milk handlers looked for. In addition, Widal's were taken from all milk handlers at all of the dairies.

At the H — dairy a history of illness (called "dumb" malaria) in the son of the proprietor was obtained. He was a milker and also peddled milk. On October 19 his physician made a clinical diagnosis of typhoid. Widal was positive, as were stools and urine.

An analysis of the 22 cases showed that all but 6 of them were supplied directly from the H — dairy, and that the dealers supplying the others had, from time to time, borrowed a can of milk from this dealer.

Results. — Arrangements were made to separate all milk handlers .

so that there should be no contact, either direct or indirect, with any members of the household. Cases stopped immediately upon the isolation of the typhoid milk handler.

The engineering division has advised the company to discontinue the practice of introducing Blackstone River water into the town pipes; also that it would be advisable to provide an adequate supply of known purity for all purposes.

REPORT UPON THE WORK OF THE BACTERIOLOGICAL LABORATORY FOR THE MONTH OF FEBRUARY, 1916.

The following gives the total number of bacteriological examinations made in the laboratory of the State Department of Health during the month of February, 1916:—

	Number of Examinations.	DIAGNOSIS.		RELEASE.	
		Positive.	Negative.	Positive.	Negative.
Diphtheria, ...	1,483	143	1,101	91	148

	Number of Examinations.	Positive.	Negative.	*Atypical.
Tuberculosis, ...	147	54	93	
*Typhoid fever (Widal test), ...	90	8	81	1
Typhoid fever (culture test), ...	19	2	17	
Malaria, ...	4	—	4	
Miscellaneous, ...	88			

Total number of examinations made, 1,831.

The following gives the total number of biological products and diagnostic outfits distributed by the State Department of Health during the month of February, 1916: —

Biological Products.

Diphtheria antitoxin: —

12,000 units (special for the Boston City Hospital), ...	217 bottles.
6,000 units (special for the Boston City Hospital), ...	24 bottles.
3,000 units, ...	4,211 bottles.
2,000 units (special for the Boston City Hospital), ...	129 bottles.
1,500 units, ...	780 bottles.
750 units, ...	611 bottles.

Smallpox vaccine: —

Capillary tubes, ...	2,382
Bulk, ...	200

Typhoid vaccine: —

Ampoules, ...	1,183
Bulk, ...	2,800

Antimeningitis serum, ...	92 bottles.
---------------------------------	-------------

Silver nitrate solution, ...	1,360 ampoules.
------------------------------------	-----------------

Diagnostic Outfits.

Culture tubes, ...	1,945
Culture media, ...	812
Sputum bottles, ...	413
Widal outfits, ...	79
Bile outfits, ...	17
Malaria outfits, ...	2

FOOD AND DRUGS.

During the month of February, 1916, samples were collected in Boston, Brockton, Chelsea, Dover, Everett, Fall River, Gloucester, Lawrence, Lynn, Malden, Methuen, Needham, New Bedford, Somerville, Springfield, Waltham, Watertown, Winchester and Woburn.

Of the 420 samples collected, 164 were of milk, 204 of foods other than milk and 52 were drugs. Fifteen drugs and 43 foods were adulterated, and 36 milk samples were below standard. One sample of milk was skimmed and 4 contained added water. Of the various foods collected the most attention was paid to sausages, of which 18 or 20 per cent. contained starch in excess of the 2 per cent. permitted by statute, and eggs, of which 13 or 22 per cent. were found to be

decomposed. Three samples of beef, representing one shipment to a sausage dealer, were decomposed, and 1 sample of scallops was soaked. The adulterated drugs represented 10 samples of spirit of peppermint, 3 of spirit of anise, 1 each of spirit of nitrous ether and tincture of iodine slightly below the U. S. P. requirements.

Sixteen convictions for violation of the food and drug laws were obtained, the total fines imposed being \$870. For violation of the egg law Jacob Pollen, Israel I. Gottfried, North American Egg Company, all of Everett, and Gusippe Rizzo of Boston were fined and appealed their cases. Frank Rutstein was convicted on three counts for violation of the egg and cold-storage laws, and paid the fine imposed. George Poyant of Dartmouth was convicted for the sale of watered milk. Carl A. Weitz of Boston was convicted on three counts, John Zajack of Lawrence on one count, and John Boran of Fall River on two counts for violation of the sausage law. The latter appealed. Eusebe Cloutier of Fall River paid a fine for selling adulterated essence of peppermint. Barnard Kaplan was convicted in the Milford court upon two counts for violation of the slaughtering laws.

Forty confiscations were made, the total weight of the articles confiscated being 10,456 pounds; these consisted of 1,446 pounds of decomposed meat sold to a sausage dealer, 1,323 pounds of decomposed poultry and meat found in a slaughterhouse, 7,535 pounds of decomposed food taken from cold storage, and 5 carcasses of veal weighing 152 pounds, 1 of which was unstamped, the balance immature. Of the articles taken from cold storage, 6,935 pounds were frozen eggs, 310 pounds were poultry and 290 pounds were beef trimmings.

In accordance with the Acts of 1902, chapter 272, the following is the list of articles of food collected in original packages or from manufacturers, wholesalers or producers:—

One sample of skimmed milk from Jerry Bond, Needham, Mass. Five samples of maple syrup labeled with the names but not the percentages of the ingredients, as follows: Robin Hood Breakfast Syrup, R. C. Williams & Co., New York; Plymouth Syrup, National Wholesale Grocery Company, Fall River; 2 samples of Golden Tree Syrup, New England Maple Syrup Company, Boston; Canada Syrup, Maple Syrup Company, Fall River. One sample of molasses vinegar from the Korman Water Manufacturing Company, Fall River, was low in acid.

NEW LEGISLATION.

GENERAL ACTS.

CHAPTER 53.

AN ACT RELATIVE TO THE ANNUAL REPORT OF DEATHS REQUIRED TO BE MADE TO THE STATE DEPARTMENT OF HEALTH BY BOARDS OF HEALTH IN CERTAIN TOWNS.

Be it enacted, etc., as follows:

SECTION 1. Section twelve of chapter seventy-five of the Revised Laws, which requires certain annual reports to be made by boards of health in certain towns is hereby repealed.

SECTION 2. This act shall take effect upon its passage. [Approved March 21, 1916.]

CHAPTER 55.

AN ACT REQUIRING LOCAL BOARDS OF HEALTH TO NOTIFY THE STATE DEPARTMENT OF HEALTH OF CASES OF DANGEROUS DISEASES.

Be it enacted, etc., as follows:

SECTION 1. Section fifty-two of chapter seventy-five of the Revised Laws, as amended by section one of chapter four hundred and eighty of the acts of the year nineteen hundred and seven, is hereby further amended by striking out the words "smallpox, diphtheria, scarlet fever or of any other", in the third line, and inserting in place thereof the word:— any,— by striking out the word "board", in the fourth and sixth lines, and inserting in place thereof the word:— department,— and also by striking out the words "the secretary thereof shall forthwith transmit a copy of such notice to the state board of charity", in the eighth and ninth lines, and inserting in place thereof the words:— upon request the state department of health shall forthwith certify any such reports to the state board of charity,— so as to read as follows:— *Section 52.* If the board of health of a city or town has had notice of a case of any disease declared by the state department of health to be dangerous to the public health therein, it shall within twenty-four hours thereafter give notice thereof to the state department of health stating the name and the location of the patient so afflicted, and upon request the state department of health shall forthwith certify any such reports to the state board of charity.

SECTION 2. This act shall take effect upon its passage. [Approved March 21, 1916.]

CHAPTER 57.

AN ACT RELATIVE TO CLAIMS OF CITIES AND TOWNS FOR THE CARE OF TUBERCULOSIS CASES.

Be it enacted, etc., as follows:

Section one of chapter five hundred and ninety-seven of the acts of the year nineteen hundred and eleven, as amended by section one of chapter six hundred and thirty-seven of the acts of the year nineteen hundred and twelve, is hereby

further amended by striking out the said section and inserting in place thereof the following new section:— *Section 1.* Every city or town which places its patients suffering from tuberculosis in a municipal or incorporated tuberculosis hospital in this commonwealth, or in a building or ward set apart by a municipal or incorporated hospital in this commonwealth for patients suffering from tuberculosis, shall be entitled to receive from the commonwealth a subsidy of five dollars a week for each patient who is unable to pay for his support, or whose kindred bound by law to maintain him, are unable to pay for the same; but a city or town shall not become entitled to this subsidy unless, upon an examination authorized or approved by the trustees of hospitals for consumptives, the sputum of such patients is found to contain bacilli of tuberculosis, nor unless the hospital building or ward is approved by said trustees, who shall not give such approval unless they have by authority of law, or by permission of the hospital, full authority to inspect the same at all times. Said trustees may at any time withdraw their approval. They shall not approve claims for subsidy hereunder for more than thirty days prior to the date when notice is mailed to them that a subsidy in any given case is claimed. [*Approved March 21, 1916.*]

CHAPTER 58.

AN ACT RELATIVE TO THE FALSE STAMPING AND LABELLING OF RECEPTACLES CONTAINING ARTICLES OF FOOD AND MISREPRESENTATION IN THE SALE OF FOOD PRODUCTS.

Be it enacted, etc., as follows:

Section twenty-four of chapter seventy-five of the Revised Laws, as amended by chapter two hundred and thirty-six of the acts of the year nineteen hundred and five and by chapter three hundred and five of the acts of the year nineteen hundred and six, and by chapter seven hundred and ninety-five of the acts of the year nineteen hundred and thirteen, is hereby further amended by striking out the said section and inserting in place thereof the following:— *Section 24.* Whoever falsely stamps or labels any cans, jars or other packages containing fruit or food of any kind, or permits such stamping or labelling, or, except as hereinafter provided, violates any provision of sections sixteen to twenty-seven, inclusive, or sells or exposes for sale any meat or meat preparation, and falsely represents the same to be Kosher, or as having been prepared in conformity with the orthodox Hebrew requirements; or falsely represents any food product or the contents of any package or container to have been so prepared, by having or permitting to be inscribed thereon the word "Kosher" in any language, shall be punished by a fine of not less than twenty-five or more than five hundred dollars; and whoever knowingly sells such goods so falsely stamped or labelled shall be punished by a fine of not less than ten or more than one hundred dollars. [*Approved March 21, 1916.*]

CASES AND DEATHS FROM DISEASES DANGEROUS

(Morbidity returns from reports of local boards of health to State Department of Health;

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation taken by State as of April 15, 1915.	Total Deaths from All Causes.	63A		19A		9		61A		19B	
				Ante- rior Polio- myeli- tis.		Chick- on Pox.		Diph- theria.		Cere- bro- spinal Menin- gitis.		Ger- man Meas- les.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	Massachusetts, ...	3,693,310	4,544	5	-	735	1	861	53	15	8	28	-
2	CITIES OVER 200,000.												
3	Boston, ¹	745,439	-	-	-	170	-	229	-	5	-	-	-
4	CITIES, 150,000-200,000.												
5	Worcester, ...	162,697	360	-	-	8	-	48	-	-	-	-	-
6	CITIES, 100,000-150,000.	554,130	939	2	-	99	1	158	13	4	2	9	-
7	Fall River, ...	124,791	248	-	-	12	-	13	4	1	-	2	-
8	New Bedford, ...	109,568	159	1	-	9	-	21	2	-	-	-	-
9	Cambridge, ...	108,822	171	-	-	55	1	42	2	2	1	3	-
10	Lowell, ...	107,978	181	1	-	3	-	57	5	1	1	1	-
11	Springfield, ...	102,971	180	-	-	20	-	20	-	-	-	3	-
12	CITIES, 50,000-100,000.	396,020	578	-	-	110	-	114	14	2	1	4	-
13	Lynn, ...	95,803	128	-	-	7	-	36	6	-	1	-	-
14	Lawrence, ...	90,259	131	-	-	15	-	37	3	-	-	1	-
15	Somerville, ...	86,854	129	-	-	14	-	11	3	2	-	-	-
16	Brockton, ...	62,288	59	-	-	70	-	22	1	-	-	1	-
17	Holyoke, ...	60,816	131	-	-	4	-	8	1	-	-	2	-
18	CITIES AND TOWNS, 25,000-50,000.	566,581	810	1	-	140	-	143	14	1	-	3	-
19	Haverhill, ...	49,450	72	-	-	14	-	33	4	-	-	-	-
20	Malden, ...	48,907	83	-	-	2	-	14	-	-	-	-	-
21	Chelsea, ...	43,426	93	-	-	6	-	5	-	1	-	-	-
22	Newton, ...	43,113	55	1	-	14	-	8	-	-	-	-	-
23	Quincy, ...	40,674	40	-	-	13	-	3	-	-	-	-	-
24	Fitchburg, ...	39,656	50	-	-	2	-	23	6	-	-	-	-
25	Pittsfield, ...	39,607	46	-	-	35	-	4	-	-	-	1	-
26	Everett, ...	37,718	54	-	-	8	-	14	-	-	-	-	-
27	Salem, ...	37,200	55	-	-	14	-	4	1	-	-	-	-
28	Taunton, ...	36,161	69	-	-	-	-	3	1	-	-	-	-
29	Brookline, ...	33,490	38	-	-	19	-	8	-	-	-	-	-
30	Medford, ...	30,509	44	-	-	4	-	7	-	-	-	1	-
31	Waltham, ...	30,154	51	-	-	7	-	3	1	-	-	1	-
32	Chicopee, ...	30,138	36	-	-	2	-	7	1	-	-	-	-
33	Revere, ...	25,178	24	-	-	-	-	2	-	-	-	-	-
34	CITIES AND TOWNS, 10,000-25,000.	513,800	746	-	-	74	-	92	6	3	3	3	-
35	Gloucester, ...	24,478	31	-	-	-	-	3	-	-	-	-	-
36	Beverly, ...	22,959	23	-	-	1	-	2	-	-	-	-	-
37	North Adams, ...	22,035	20	-	-	-	-	-	-	-	-	-	-
38	Northampton, ...	21,654	50	-	-	1	-	1	1	-	-	1	-
39	Peabody, ...	18,625	22	-	-	1	-	2	-	-	-	-	-
40	Attleboro, ...	18,480	36	-	-	-	-	10	1	-	-	-	-
41	Westfield, ...	18,411	25	-	-	7	-	1	-	-	-	-	-
42	Leominster, ...	17,646	26	-	-	4	-	11	-	-	-	-	-
43	Melrose, ...	16,880	28	-	-	4	-	1	-	-	-	-	-
44	Watertown, ...	16,515	18	-	-	-	-	3	-	-	-	-	-
45	Woburn, ...	16,410	30	-	-	1	-	5	1	-	-	-	-
46	Gardner, ...	16,376	18	-	-	4	-	1	-	1	1	-	-
47	Framingham, ...	15,860	33	-	-	16	-	3	-	-	-	-	-
48	Newburyport, ...	15,311	22	-	-	6	-	1	-	-	-	-	-
49	Marlborough, ...	15,250	27	-	-	-	-	-	-	-	-	-	-
50	Arlington, ...	14,889	14	-	-	3	-	4	-	1	-	-	-
51	Southbridge, ...	14,217	16	-	-	-	-	5	-	-	-	1	-

¹ Boston death returns for January not received at the office of the Secretary of the Commonwealth March 15.

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation taken by State as of April 15, 1915.	Total Deaths from All Causes.	63A		19A		9		61A		19B	
				Ante- rior Poli- myeli- tis.		Chick- en pox.		Diph- theria.		Cere- bro- spinal Menin- gitis.		Ger- man Meas- les.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	Methuen, ...	14,007	27	-	-	3	-	5	-	-	-	-	-
2	Weymouth, ...	13,969	16	-	-	-	-	-	-	-	-	-	-
3	Milford, ...	13,684	30	-	-	-	-	3	-	-	-	-	-
4	Adams, ...	13,213	10	-	-	2	-	1	1	-	1	-	-
5	Clinton, ...	13,192	19	-	-	-	-	-	-	-	-	-	-
6	Plymouth, ...	12,926	20	-	-	-	-	6	-	-	-	-	-
7	Wakefield, ...	12,781	19	-	-	-	-	1	-	-	-	-	-
8	Winthrop, ...	12,753	16	-	-	-	-	1	-	-	-	-	-
9	Greenfield, ...	12,613	20	-	-	-	-	1	-	-	-	-	-
10	Webster, ...	12,565	18	-	-	-	-	1	-	-	-	-	-
11	West Springfield, ...	11,339	11	-	-	-	3	1	-	-	-	-	-
12	Danvers, ...	11,177	39	-	-	14	-	-	-	-	-	1	-
13	Natick, ...	11,119	20	-	-	-	-	-	-	-	-	-	-
14	Dedham, ...	11,043	8	-	-	3	-	4	1	-	-	-	-
15	Norwood, ...	10,977	11	-	-	-	-	2	-	-	-	-	-
16	Saugus, ...	10,226	16	-	-	2	-	2	-	-	-	-	-
17	Winchester, ...	10,005	7	-	-	2	-	4	-	1	1	-	-
18	Towns, 5,000-10,000.	362,941	509	2	-	79	-	35	2	-	1	8	-
19	Towns, 2,500-5,000.	176,276	265	-	-	28	-	27	3	-	1	1	-
20	Towns under 2,500.	216,326	337	-	-	27	-	15	1	-	-	-	-

In addition to the above, there were 2 cases of dogbite in Brockton; 1 death from dysentery in Grafton; 3 cases of malaria, 2 in Chelsea and 1 in Wellesley; 3 deaths from tetanus, 1 from Fall River, 1 from Haverhill, and 1 from Beverly; 4 cases of trachoma, 2 in Boston, 1 in Fitchburg, and 1 in Lancaster; 3 cases of trichinosis, 1 from Worcester, 1 from Brockton, and 1 from Chelsea.

TO THE PUBLIC HEALTH—*Concluded.*

33A		6		19C		7		100		28		29-35		1		8		5		22		Line No.
Oph- thalmia Neona- torum.		Mea- sles.		Mumps.		Scar- let Fever.		Septic Sore Throat.		Pulmo- nary Tuber- culosis.		Tuber- culosis, Other Forms.		Ty- phoid Fever.		Whoop- ing Cough.		Small- pox.		An- thrax.		
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
-	-	4	-	-	-	10	-	-	-	3	4	-	1	2	1	-	-	-	-	-	-	1
-	-	2	-	-	-	2	-	-	-	1	3	-	-	-	-	-	-	-	-	-	-	2
2	-	3	-	-	-	2	-	-	-	3	1	-	-	-	-	12	-	-	-	-	-	3
-	-	1	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	4
-	-	7	1	-	-	2	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	5
-	-	-	-	-	-	-	1	-	-	2	2	-	2	-	-	-	-	-	-	-	-	6
1	-	117	1	-	-	4	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	7
4	-	-	-	-	-	1	-	-	-	2	-	-	-	-	-	26	1	-	-	-	-	8
1	-	30	-	6	-	3	-	-	-	1	-	-	-	-	-	4	1	-	-	-	-	9
1	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
1	-	1	-	-	-	3	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	11
1	-	1	-	-	-	1	-	-	-	3	-	-	1	-	-	-	-	-	-	-	-	12
1	-	1	-	-	-	5	-	-	-	1	-	-	-	-	-	13	-	-	-	-	-	13
-	-	-	-	-	-	15	-	5	-	3	-	-	-	-	-	-	-	-	-	-	-	14
1	-	-	-	-	-	5	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	15
1	-	194	2	-	-	2	-	-	-	1	-	-	-	1	-	-	1	1	-	-	-	16
-	-	-	-	-	-	4	-	-	-	-	-	1	-	-	-	2	-	-	-	-	-	17
5	-	141	-	19	-	63	1	-	-	41	22	4	3	13	2	157	2	-	-	-	-	18
14	-	51	2	4	-	23	-	-	-	13	16	-	3	2	-	51	7	-	-	-	-	19
3	-	172	3	15	-	33	-	-	-	10	32	-	2	1	1	42	3	-	-	-	-	20

NOTICE OF A COMPETITIVE EXAMINATION FOR QUALIFICATION ON THE ELIGIBLE LIST OF CANDIDATES FOR POSITIONS AS STATE DIS- TRICT HEALTH OFFICERS IN THE MASSA- CHUSETTS STATE DEPARTMENT OF HEALTH.

Although the law leaves the appointment of District Health Officers in the hands of the Commissioner of Health, it is the policy of the State Department of Health to hold competitive examinations for this position and to consider the results of such examinations as the principal basis for selecting appointees.

On May 25 and 26, 1916, and on subsequent dates to be announced at that time, an examination will be held for the purpose of establishing an eligible list of appointments to positions as State District Health Officers of the Massachusetts State Department of Health.

The written examination will be held on the above dates in the examination room of the Civil Service Commission, No. 15, State House, Boston. The oral and practical examinations will be held on dates and at places announced at the time of the written examination.

There will be at least two appointments to be made from this eligible list in the near future. The eligible list established on the results of this examination will hold for at least one year.

Persons possessing the necessary qualifications and desiring to enter the competitive examination of this service are requested to communicate with the State Commissioner of Health, State House, Boston, at once. Upon such written application a list of rules and regulations governing the appointment and promotion of District Health Officers and an application blank will be sent.

Admission to the examination is governed by the regulations accompanying this notice. Physical fitness is a necessary prerequisite, but no percentage credits are given on physique. The examination comprises written, oral, and, if feasible, practical tests.

Relative rating on the eligible list is established on the basis of —

(a) Previous experience in public health work, both administrative and scientific, maximum, 20 points.

(b) Results of oral examination; maximum, 20 points.

(c) Results of written examination; maximum, 60 points.

A. J. McLAUGHLIN,
Commissioner of Health.

REGULATIONS GOVERNING APPOINTMENT OF STATE DISTRICT HEALTH OFFICERS.

1. *Grades of District Health Officers.*—There shall be four grades of District Health Officers, viz.: A, B, C and D.

2. *District Health Officers appointed only to Grade D.*—Candidates for the position of District Health Officer, after passing a successful examination, shall be eligible for appointment to Grade D.

3. *Form of Application for Appointment.* — Candidates for the position of District Health Officer must make application addressed to the Commissioner of Health in their own handwriting, asking permission to appear before a board of examiners. Candidates shall state their age, date and place of birth, present legal residence, names of colleges or institutions of learning of which they are graduates, date of graduation, and shall furnish testimonials as to their professional experience and moral character.

4. *Age Limit.*—No candidate will be eligible to appear before a board of examiners whose age is less than twenty-three years or more than forty years. Candidates over thirty-five must have had at least three years' practical experience in public health work.

5. *Professional Requirements.* — Candidates shall be graduates of an incorporated medical school, or shall have had at least five years' experience in public health work and sanitary science.

6. *Citizenship.* — All candidates must be citizens of the United States, and preference in appointment shall be given to residents of Massachusetts.

7. *Physical Examination.*—Candidates for appointment must pass a satisfactory physical examination before a board of examiners.

8. *Board of Examiners.*—The board of examiners shall consist of three or more members. These members shall be selected by the Commissioner of Health from the Public Health Council or other officials of the State Department of Health.

9. *Scope of Examination.* — All examinations of candidates for appointment as District Health Officers shall be conducted by a board of examiners, and the examination shall include a physical examination and such oral, written and practical tests as the board deems necessary in the subjects outlined in the succeeding sections. Experience and fitness shall also be rated by the board of examiners.

10. *Subjects for Written Examination.*—All candidates for appointment must pass a satisfactory written examination in communicable diseases, hygiene and sanitation, preventive medicine, vital statistics, pathology and bacteriology.

11. *Compensation.* — The compensation of District Health Officers shall be as follows: —

[illegible]

12. *When promoted.* — After six months' satisfactory service in Grade D a District Health Officer is entitled to promotion to Grade C. After three years'

satisfactory service in Grade C, a District Health Officer is entitled to examination for promotion to Grade B. After five years' satisfactory service in Grade B, a District Health Officer is entitled to examination for promotion to Grade A.

13. *Examinations for Promotion.* — Examinations for promotion shall be conducted by a board of examiners, who shall take into account the efficiency record of the candidate as well as his professional and physical fitness. Failing first examination a District Health Officer may be given a second examination after one year. Failing two successive examinations such a District Health Officer shall be dropped from the rolls.

14. *Tenure of Office.* — A District Health Officer may be removed from office by the Commissioner of Health because of failure to pass two successive examinations for promotion, or because of gross misconduct or inefficiency, but only after the accused officer has been furnished with a copy of the charges made against him and given a hearing thereon by the Public Health Council.

MASSACHUSETTS STATE DEPARTMENT OF HEALTH.

Commissioner, ALLAN J. McLAUGHLIN, M.D.

Division of Administration,	. . .	
Division of Sanitary Engineering,	. . .	Director and Chief Engineer, X. H. GOODNOUGH, C.E.
Division of Communicable Diseases,	. . .	Director, E. R. KELLEY, M.D.
Division of Water and Sewage Laboratories,		Director and Chemist, H. W. CLARK.
Division of Biologic Laboratories,	. . .	Director and Pathologist, MILTON J. ROSENAU, M.D.
Division of Food and Drugs,	. . .	Director and Analyst, HERMANN C. LYTGOE.
Division of Hygiene,	. . .	Director, SELSKAR M. GUNN.

Public Health Council.

ALLAN J. McLAUGHLIN, M.D., *Chairman.*

WM. T. SEDGWICK, Ph.D.	JOSEPH E. LAMOUREUX, M.D.
GEORGE C. WHIPPLE, S.B.	WM. J. GALLIVAN, M.D.
DAVID L. EDSALL, M.D.	JOHN T. WHEELWRIGHT.

State District Health Officers.

The Southeastern District,	. . .	ADAM S. MacKNIGHT, M.D., Fall River.
The Eastern District,	. . .	MERRILL E. CHAMPION, M.D., Wollaston.
The Northeastern District,	. . .	LYMAN A. JONES, M.D., Swampscott.
The North Midland District,	. . .	CHARLES E. SIMPSON, M.D., Lowell.
The South Midland District,	. . .	WILLIAM W. WALCOTT, M.D., Natick.
The Wachusett District,	. . .	LEWIS FISH, M.D., Fitchburg.
The Connecticut Valley District,	. . .	JOHN S. HITCHCOCK, M.D., Northampton.
The Berkshire District,	. . .	STANLEY H. OSBORN, M.D., North Adams.

PUBLIC HEALTH BULLETIN

ISSUED MONTHLY

BY THE

STATE DEPARTMENT OF HEALTH
OF MASSACHUSETTS



APRIL, 1916

Vol. 3, No. 4

ALLAN J. McLAUGHLIN, M.D., *Commissioner*

The Common Health of the Commonwealth

Entered as Second-class Matter Oct. 26, 1914, at the Post Office at Boston, Mass.,
under the Act of Aug. 24, 1912.

CONTENTS.

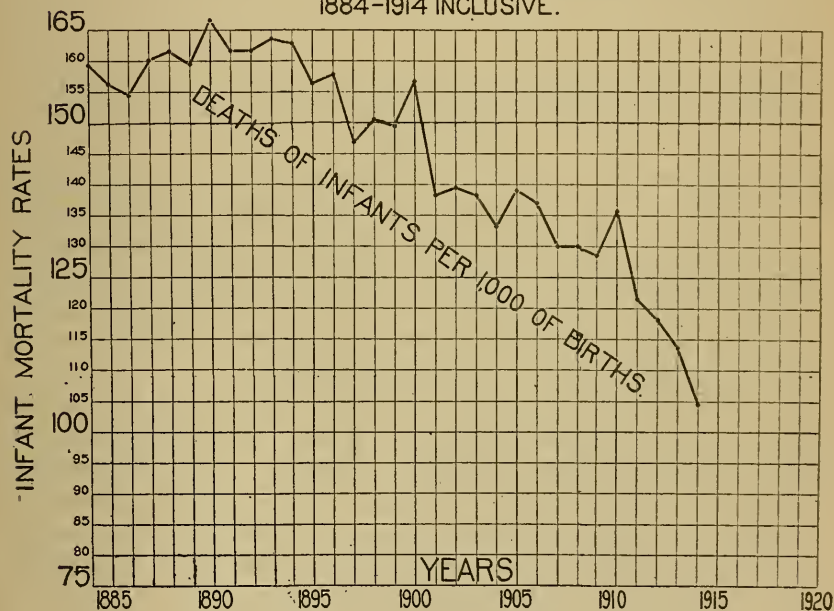
	PAGE
Infant Mortality in Massachusetts, ...	73
A Health Creed for Massachusetts Boys and Girls, ...	74
Lecture Service and Child Welfare Exhibit;	74
School Hygiene Lectures in Martha's Vineyard, ...	75
Résumé of Communicable Diseases for March, 1916, ...	76
Returns of Diseases and Deaths, ...	78
Report of the Bacteriological Laboratory, ...	79
Food and Drugs, ...	80
New Legislation, ...	81
Resolve authorizing State Department of Health to provide for the Prevention and Suppression of Syphilis, ...	81
An Act relative to the Sale of Poisons, ...	81
Amended Regulations concerning the Use of the Common Drinking Cup, ...	82
Amended Regulations concerning the Providing of a Common Towel, ...	83
Cases and Deaths from Diseases Dangerous to the Public Health for Cities and Towns, February, 1916, ...	84

INFANT MORTALITY IN MASSACHUSETTS.

THE chart printed herewith is illustrative of the annual infant mortality rates in Massachusetts from 1884 to 1914, inclusive.

The figure for each year is equal to the number of deaths under one year per thousand living births. There have been fluctuations in

THE COMMONWEALTH OF MASSACHUSETTS
STATE DEPARTMENT OF HEALTH
MASSACHUSETTS INFANT MORTALITY RATES
1884-1914 INCLUSIVE.



the rate, but the aggregate shows a very considerable decline, which has been uninterrupted since 1910. It should be noted, however, that the base line represents not zero, but a rate of 75.

A HEALTH CREED FOR MASSACHUSETTS BOYS AND GIRLS.

THE following health creed has been distributed to school children at some of the lectures on "How to Keep Well" which have been given to audiences of school children: —

MY BODY IS THE TEMPLE OF MY SOUL

Therefore: —

I will keep my body clean within and without;
I will breathe pure air and I will live in the sunlight;
I will do no act that might endanger the health of others;
I will try to learn and practice the rules of healthy living;
I will work and rest and play at the right time and in the right way, so that my mind will be strong and my body healthy, and so that I will lead a useful life and be an honor to my parents, to my friends and to my country.

LECTURE SERVICE AND CHILD WELFARE EXHIBIT.

THE lecture service of the Division of Hygiene is growing in popularity, and the requests for these lectures are constantly coming in. The work of the members of the Department is occasionally supplemented by other gentlemen, physicians and dentists, to whom the slides of the Department have been loaned, and who have kindly given their services gratis on account of their interest in promoting public health in their own communities.

The Child Welfare Exhibit has been constantly engaged since last fall, and is now booked until early in June. The following are the April appointments: Week of April 3, Rockland; week of April 10, Winthrop; week of April 17, Whitman; week of April 24, Lawrence.

In May the exhibit will visit Salem, New Bedford and Lowell.

During the month of March, 106 lectures were given to approximately 15,875 people by 14 members of the Department.

SCHOOL HYGIENE LECTURES IN MARTHA'S VINEYARD.

DURING the week of April 10 the assistant to the director of the Division of Hygiene spent a number of days on Martha's Vineyard, assisting the local school authorities in bringing the subject of hygiene to the attention both of pupils and parents. A campaign of lectures was arranged in co-operation with Mr. C. A. Crowell, superintendent of schools for the entire island.

On Monday, April 10, Edgartown was visited and a lecture was given in the afternoon to about 200 children on the subject "How to Keep Well." In the evening of that day a meeting for parents and other adults was held in the Town Hall, at which a lecture was given on "School Hygiene." This meeting was also addressed by Mr. Francis Wadsworth of the State Board of Education.

On Tuesday, April 11, the day was devoted to Oak Bluffs. Two groups of school children came to the Town Hall in the afternoon, and a lecture on "How to Keep Well" was given to the lower grades, and "Man and the Microbe" to the children of the higher grades and the high school. In the evening a lecture on "School Hygiene" was given to a small group of adults. The attendance was small at Oak Bluffs, but the adults who came appeared to be very much interested and asked a number of questions following the lecture. The total number of persons reached in Oak Bluffs was about 250.

Wednesday, April 12, was spent in Vineyard Haven. Three lectures were given in the public schools. General talks were given to 100 children of the lower grades, 80 of the upper grades and 100 in the high school. The high school audience in Vineyard Haven seemed to be particularly interested. In the afternoon the joint school committees of the several towns of the island met at Vineyard Haven Town Hall, where they were addressed by Mr. Wadsworth of the State Board of Education and by Dr. MacKnight, District Health Officer. Mr. Wadsworth discussed the need of a standard in school administration, and Dr. MacKnight read a paper on "School Hygiene." Following this there was a general discussion. In the evening a lecture was given in the Town Hall on the subject of "School Hygiene." Dr. MacKnight and Mr. Wadsworth also spoke briefly on this occasion upon the same subjects as in the afternoon. The evening attendance was about 200.

Thursday, April 13, was spent in the distinctly rural section of the island. A school was visited in the town of Chilmark and two schools

in the town of West Tisbury. In all of these schools the subject was "How to Keep Well." A very good meeting for adults was held in the Agricultural Hall in West Tisbury on Thursday evening, at which the attendance was about 100. This was a general lecture where "School Hygiene" and "Man and Microbe" slides were used.

The schools of Martha's Vineyard are headed by a man who takes a real interest in the health and welfare of the children, and he has installed in most of the schools, even the more remote rural ones, either individual drinking cups or bubbling fountains, and there are no common towels in any of the schools on the island. Efforts are also being made to improve the lighting and ventilation of schoolhouses. The general public interest in these things is small, however. I believe that the visit made to the island has been worth while, and it would be very valuable if it could be repeated another year.

The lantern-slide lectures were apparently very much enjoyed, especially in the rural sections, in most of which it was possible to darken the windows and use the small acetylene lantern. Many of these children had never seen anything of this kind before, and will probably remember the slides and the lessons they illustrate for some time.

RÉSUMÉ OF COMMUNICABLE DISEASES FOR MARCH, 1916.

Prevalence. — Measles, whooping cough, scarlet fever and diphtheria continue to be the prominent factors in the communicable disease reports. All of these diseases show a tendency to decrease except measles. From past experience with this disease we can probably expect it to continue to spread during April and May. The total number of cases of communicable diseases reported to this Department during March was considerably greater than during February, but about the same as those reported for March of 1915. The comparatively large number of communicable diseases reported are due to the continued spread of measles to new territory.

Distribution. — The distribution of the various communicable diseases shows some interesting facts. Measles has been prevalent for several months in the Northeastern Health District, with the point of intensity at Lynn. Chelsea, Saugus and Winthrop have had a considerable number of cases. In this area the infection seems to be decreasing. In the Eastern Health District there has been a rapid increase of cases since the middle of February. Brockton and Whitman seem to be the center of this focus of infection. With the excep-

tion of Worcester and Springfield epidemic measles is confined to the above-named health districts.

Whooping cough is not decreasing in amount. Study of the records shows that it has been present with little variation since January, 1915. It is well distributed all over the State. In the following cities and towns it is above the average for that city or town: Bourne, Middleborough, Rehoboth, Brookline, Cambridge, Andover and Springfield.

Scarlet fever is decreasing. This is true in comparison with February and also in comparison with March, 1915. However, in the following cities and towns it is still prevalent in unusual amounts: Braintree, Brookline, Norwood, Quincy, Chelsea, Lynn, Needham, Warren and Montague.

Diphtheria is still well distributed over the State. It is decreasing in amount. It remains an important factor in the returns from the following cities and towns: Attleboro, Cambridge, Norwood, Malden, Newbury, Lawrence, Woburn and Pittsfield. It is to be noted that in a number of places the reports for diphtheria include "carriers" discovered in the course of routine school examinations.

Mortality. — As usual, tuberculosis heads the list of the causes of death, with 277 deaths during March.

Diphtheria caused 42 deaths during last month. This is a considerable decrease over the same disease for the month of February. The fatality rate was 6.2. This is unusually low.

Whooping cough continues to take an unusual number of lives. With 927 reported cases there were 21 deaths. This gives a fatality rate of 2.3 and does not account for the complications and sequelæ.

Measles accounted for 16 deaths during March. These are only those deaths actually reported as being caused by measles. A study of the death certificates reveals the fact that a great number of deaths reported as being caused by pneumonia are really caused by measles. Notwithstanding the monthly record of deaths caused by measles, directly or indirectly, people continue to consider it a "harmless" disease.

Scarlet fever caused 9 deaths last month. The fatality rate was 1.1. Considering the fatality rate for the same month last year this disease was only one-half as fatal.

Typhoid fever continues to show a gratifying decrease in amount. While it caused a total of only 8 deaths during March, the fatality rate was unusually high — 16.0. This unusually high fatality rate may be due to a failure in reporting cases.

Epidemics. — The only epidemic of note is the one now in progress at Brockton and Whitman. In this case it is measles. Brockton authorities are making earnest efforts to control the infection.

Rare Diseases. — There have been 3 cases of trichinosis reported during March in the following cities: Springfield, Chelsea and Haverhill. Pellagra has been reported from the following places: Danvers, Newton, Northampton and Boston.

There has been a sharp outbreak of anthrax, principally in Winchester and Woburn, with isolated cases at Chelsea and Somerville. An investigation of this outbreak is in progress, and a complete report will be published later.

RETURNS OF CASES AND DEATHS FROM DISEASES DECLARED BY THE STATE DEPARTMENT OF HEALTH TO BE DANGEROUS TO THE PUBLIC HEALTH.

[Under the provisions of section 52, chapter 75, Revised Laws, and chapter 210, Acts of 1913.]

DISEASES.	WEEK ENDING —									
	MAR. 4.		MAR. 11.		MAR. 18.		MAR. 25.		Total.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Anterior poliomyelitis, ...	—	—	—	—	2	—	1	1	3	1
Anthrax, ...	—	—	1	1	4	1	3	—	8	2
Cerebro-spinal meningitis, . . .	3	1	2	2	4	2	3	2	12	7
Chicken pox, ...	125	—	122	1	115	—	127	—	489	1
Diphtheria, ...	162	11	194	10	172	14	148	9	676	44
Dog bite (requiring antirabic treatment).	—	—	1	—	—	—	—	—	1	—
German measles, ...	5	—	11	—	9	—	14	—	39	—
Measles, ...	570	2	640	8	735	5	889	5	2,834	20
Mumps, ...	46	—	57	—	74	—	56	—	233	—
Ophthalmia neonatorum, ...	47	—	52	—	60	—	44	—	203	—
Pellagra, ...	—	—	1	—	2	—	1	—	4	—
Scarlet fever, ...	189	1	209	2	211	3	226	3	835	9
Septic sore throat, ...	23	2	4	—	3	—	3	—	33	2
Smallpox, ...	—	—	—	—	—	—	—	—	3	—
Tetanus, ...	1	—	—	—	1	1	1	—	3	1
Trachoma, ...	—	—	—	—	4	—	—	—	4	—
Trichinosis, ...	—	—	—	—	2	—	1	—	3	—
Tuberculosis, pulmonary (or not classified), ...	164	86	150	81	154	76	152	61	620	304
Tuberculosis, other forms, . . .	13	17	12	17	10	16	16	10	51	60
Typhoid fever, ...	16	—	13	5	7	1	14	2	50	8
Whooping cough, ...	256	5	208	7	244	7	221	3	929	22
Totals, ...	1,620	125	1,677	134	1,813	126	1,923	96	7,033	481

REPORT UPON THE WORK OF THE BACTERIOLOGICAL LABORATORY FOR THE MONTH OF MARCH, 1916.

The following gives the total number of bacteriological examinations made in the laboratory of the State Department of Health during the month of March, 1916:—

	Number of Examinations.	DIAGNOSIS.		RELEASE.	
		Positive.	Negative.	Positive.	Negative.
Diphtheria, ...	1,188	96	865	53	174

	Number of Examinations.	Positive.	Negative.	*Atypical.
Tuberculosis, ...	286	76	110	
*Typhoid fever (Widal test), ...	79	15	62	2
Typhoid fever (culture test), ...	10	1	9	
Malaria, ...	2	—	2	
Miscellaneous, ...	122			

Total number of examinations made, 1,687.

The following gives the total number of biological products and diagnostic outfits distributed by the State Department of Health during the month of March, 1916:—

Biological Products.

Diphtheria antitoxin:—

12,000 units (special for the Boston City Hospital), ...	342 bottles.
3,000 units, ...	3,777 bottles.
1,500 units, ...	887 bottles.
750 units, ...	1,252 bottles.

Smallpox vaccine:—

Capillary tubes, ...	4,128
Bulk, ...	1,200

Typhoid vaccine:—

Ampoules, ...	836
Bulk, ...	1,700

Antimeningitis serum, ... 134 bottles.

Silver nitrate solution, ... 1,868 ampoules.

Diagnostic Outfits.

Culture tubes, ...	1,606
Media, ...	2,125
Sputum bottles, ...	384
Widal outfits, ...	122
Bile outfits, ...	18
Malaria outfits, ...	2

FOOD AND DRUGS.

During the month of March, 1916, samples were collected in 29 cities and towns.

Of the 758 samples collected, 461 were milk, 216 were foods other than milk, and 81 were drugs. There were 20 samples of drugs which were below the requirements of the Pharmacopœia. There were 23 samples of food found to be adulterated, consisting of 1 sample of cocoa, 2 samples of decomposed eggs, 2 samples of maple sugar containing cane sugar, 1 sample of compound lard improperly labeled, 2 samples of hamburg steak containing a sulphurous acid preservative, 6 samples of sausages containing starch in excess of 2 per cent., 8 samples of scallops containing added water,¹ and 1 sample of vinegar below the legal standard of acidity. There were 81 samples of milk below standard, of which 16 were skimmed milk not properly labeled, and 4 contained added water.

There were 22 convictions obtained for violation of the laws. The total amount of fines imposed was \$1,130. For violation of the egg law the American Egg Company, Joseph Eisenberg, Hyman Goldstein, Samuel Gottfried, Israel Gottfriett, Barney Greenglass, Jacob Pollen, Oscar Rottenberg, Max Shwerer, Standard Egg Company and Abram Zion were fined, and all appealed their cases, with the exception of Hyman Goldstein and Barney Greenglass. James C. Peters was convicted in Lawrence for violation of the milk law, and appealed. George W. Anthony was convicted in Chelsea for selling adulterated scallops. The Sichel Provision Company was convicted in Boston for the sale of adulterated sausages. Louis Hill was convicted in Framingham for offering for sale decomposed beef. J. Howard Eames, Salvatore Deprimo and Nathan Prolman were convicted for violation of the slaughtering laws, and Lewis B. Goodspeed for violation of the cold storage laws.

¹ All these samples of adulterated scallops have been traced to interstate shipments.

There were 23 confiscations made, the total weight being 4,842 pounds. Of these confiscations 1 was of pork, 5 of veal, 2 of poultry, 2 of fish and the balance of eggs.

In accordance with the Acts of 1902, chapter 272, the following is the list of articles of adulterated food collected in original packages or from manufacturers, wholesalers or producers: —

One sample of cider vinegar from the Kormon Water Manufacturing Company, Fall River, — low in solids.

One sample of skimmed milk, not properly marked, produced by F. X. Lacombe of Marlborough.

NEW LEGISLATION.

RESOLVES, CHAPTER 47.

RESOLVE AUTHORIZING THE STATE DEPARTMENT OF HEALTH TO PROVIDE FOR THE PREVENTION AND SUPPRESSION OF SYPHILIS.

Resolved, That there be allowed and paid out of the treasury of the commonwealth, a sum not exceeding ten thousand dollars, to be expended under the direction of the state department of health in purchasing dioxy-diamino-arsenobenzol and its derivatives, or other substances of equal or greater value in the prevention of the transmission of syphilis, or in making investigations as to the practicability of manufacturing, or in manufacturing, the same for free distribution to boards of health, hospitals, dispensaries and physicians for use within the commonwealth in the suppression of syphilis in such manner and subject to such rules and regulations as the state department of health shall prescribe. [Approved April 11, 1916.]

GENERAL ACTS, CHAPTER 78.

AN ACT RELATIVE TO THE SALE OF POISONS.

Be it enacted, etc., as follows:

SECTION 1. Section two of chapter two hundred and thirteen of the Revised Laws, as amended by chapter two hundred and sixty-three of the acts of the year nineteen hundred and twelve, and by chapter five hundred and eighty-five of the acts of the year nineteen hundred and thirteen, is hereby further amended by striking out the words "laudanum, McMunn's elixir, morphia or any of its salts," in the sixth and seventh lines, and by striking out the word "opium", in the seventh line, so as to read as follows: — *Section 2.* Whoever sells arsenic (arsenious acid), atropia or any of its salts, chloral hydrate, chloroform, cotton root and its fluid extract, corrosive sublimate, cyanide of potassium, Donovan's solution, ergot and its fluid extract, Fowler's solution, oil of pennyroyal, oil of savin, oil of tansy, Paris green, Parson's vermin exterminator, phosphorus, prussic acid, "rough on rats", strychnia or any of its salts, tartar emetic, tincture of aconite, tincture of belladonna, tincture of digitalis, tincture of nux vomica,

tincture of veratrum viride, compounds of fluorine, or carbolic acid, without the written prescription of a physician, shall affix to the bottle, box or wrapper containing the article sold a label of red paper upon which shall be printed in large black letters the name and place of business of the vendor and the words *POISON* and *ANTIDOTE*, and the label shall also contain the name of an antidote, if any, for the poison sold. He shall also keep a record of the name and quantity of the article sold and of the name and residence of the person or persons to whom it was delivered, which shall be made before the article is delivered and shall at all times be open to inspection by the officers of the district police and by the police authorities and officers of cities and towns; but no sale of cocaine or its salts shall be made except upon the prescription of a physician. Whoever neglects to affix such label to such bottle, box or wrapper before delivery thereof to the purchaser or whoever neglects to keep or refuses to show to said officers such record or whoever purchases any of said poisons and gives a false or fictitious name to the vendor shall be punished by a fine of not more than fifty dollars. The provisions of this section shall not apply to sales by wholesale dealers or manufacturing chemists to retail dealers, or to a general merchant who sells Paris green, London purple or other arsenical poisons in unbroken packages containing not less than one quarter of a pound, for the sole purpose of destroying potato bugs or other insects upon plants, vines or trees, except that he shall record each sale and label each package sold, as above provided. Nor shall the provisions of this section apply to sales of compounds containing not more than fifty per cent of sodium fluoride intended solely for the destruction of roaches, ants or other household insects when sold in sealed metal packages containing not less than one fourth of a pound plainly labelled in such a manner as to show the purposes for which the preparation is intended.

SECTION 2. This act shall take effect upon its passage. [*Approved March 28, 1916.*]

AMENDED REGULATIONS CONCERNING THE USE OF THE COMMON DRINKING CUP.

At a meeting of the State Department of Health held on March 22, 1916, it was voted that the regulations concerning the use of the common drinking cup, made in accordance with the provisions of chapter 428 of the Acts of 1910, be amended so as to read as follows: —

On and after July 1, 1916, it shall be unlawful to provide a common drinking cup —

(a) In any public park, street or way.

(b) In any building or premises used as a public institution, hotel, theatre, public hall or public school, or in any part of any factory, market, office building or store of any kind which is open to the general public.

(c) In any railroad station, railroad car, steam or ferry boat.

The term "common drinking cup" as used in these regulations shall be construed to mean any vessel or utensil used for conveying water to the mouth, and available for common use by the public.

ACTS OF 1910, CHAPTER 428.

SECTION 1. In order to prevent the spread of communicable diseases, the state board of health is hereby authorized to prohibit in such public places, vehicles or buildings as it may designate the providing of a common drinking cup, and the board may establish rules and regulations for this purpose.

SECTION 2. Whoever violates the provisions of this act, or any rule or regulation of the state board of health made under authority hereof shall be deemed guilty of a misdemeanor and be liable to a fine not exceeding twenty-five dollars for each offence.

SECTION 3. All acts and parts of acts inconsistent herewith are hereby repealed.

AMENDED REGULATIONS CONCERNING THE PROVIDING OF A COMMON TOWEL.

At a meeting of the State Department of Health held on March 22, 1916, it was voted that the regulations concerning the providing of a common towel made under the provisions of chapter 59 of the Acts of 1912 be amended so as to read as follows: —

On and after July 1, 1916, it shall be unlawful to provide a common towel —

(a) In a lavatory used in connection with any public institution, schoolhouse, hotel, restaurant, theatre or public hall, or in any part of any factory, market, office building or store of any kind which is open to the general public.

(b) In a lavatory used in connection with any railroad station, railroad car, steam or ferry boat.

The term "common towel" as used in these regulations shall be considered to mean a roller towel or a towel available for use by more than one person without being washed after such use.

ACTS OF 1912, CHAPTER 59.

SECTION 1. In order to prevent the spread of communicable diseases, the state board of health is hereby authorized to prohibit in hotels and in such public places, vehicles or buildings as it may designate the providing of a common towel, and the board may establish rules and regulations for this purpose.

SECTION 2. Whoever violates the provisions of this act, or any rule or regulation of the state board of health made under authority hereof, shall be deemed guilty of a misdemeanor and be liable to a fine not exceeding twenty-five dollars for each offence.

SECTION 3. This act shall take effect on the first day of June, nineteen hundred and twelve.

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation taken by State as of April 15, 1915.	Total Deaths from All Causes.	63A		19A		9		19B		6	
				Ante- rior Polio- myeli- tis.		Chick- en Pox.		Diph- theria.		Ger- man Meas- les.		Meas- les.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	Massachusetts, ...	3,693,310	3,865	3	2	541	-	732	38	30	-	1930	19
2	CITIES OVER 500,000.												
3	Boston, ¹	745,439	-	-	-	126	-	238	-	-	-	388	-
4	CITIES, 150,000-500,000.												
5	Worcester, ...	162,697	310	-	1	2	-	30	-	-	-	56	-
6	CITIES, 100,000-150,000.	554,130	888	-	-	80	-	125	8	7	-	111	3
7	Fall River, ...	124,791	215	-	-	6	-	17	1	-	-	14	1
8	New Bedford, ...	109,568	169	-	-	7	-	11	-	1	-	19	1
9	Cambridge, ...	108,822	148	-	-	40	-	24	2	1	-	14	-
10	Lowell, ...	107,978	194	-	-	6	-	62	5	5	-	28	1
11	Springfield, ...	102,971	142	-	-	21	-	11	-	-	-	36	-
12	CITIES, 50,000-100,000.	596,020	484	1	-	42	-	134	16	3	-	451	6
13	Lynn, ...	95,803	119	-	-	5	-	37	3	1	-	274	5
14	Lawrence, ...	90,259	97	1	-	11	-	31	7	-	-	63	1
15	Somerville, ...	86,854	120	-	-	9	-	11	3	1	-	8	-
16	Brockton, ...	62,288	72	-	-	16	-	41	1	1	-	83	-
17	Holyoke, ...	60,816	76	-	-	1	-	14	2	-	-	23	-
18	CITIES AND TOWN, 25,000-50,000.	565,381	647	-	-	86	-	95	5	4	-	218	2
19	Haverhill, ...	49,450	63	-	-	2	-	21	1	-	-	2	-
20	Malden, ...	48,907	55	-	-	7	-	13	2	1	-	6	-
21	Chelsea, ...	43,426	50	-	-	5	-	5	-	-	-	61	-
22	Newton, ...	43,113	55	-	-	5	-	6	1	-	-	20	-
23	Quincy, ...	40,674	37	-	-	13	-	2	-	2	-	11	-
24	Fitchburg, ...	39,656	39	-	-	1	-	18	-	-	-	22	-
25	Pittsfield, ...	39,607	48	-	-	12	-	1	-	1	-	2	-
26	Everett, ...	37,718	39	-	-	3	-	7	-	-	-	21	-
27	Salem, ...	37,200	41	-	-	17	-	1	-	-	-	46	-
28	Taunton, ...	36,161	75	-	-	1	-	2	-	-	-	9	1
29	Brookline, ...	33,490	28	-	-	9	-	4	-	-	-	10	-
30	Medford, ...	30,509	31	-	-	5	-	1	-	-	-	6	-
31	Waltham, ...	30,154	33	-	-	5	-	2	-	-	-	1	1
32	Chicopee, ...	30,138	33	-	-	1	-	3	1	-	-	1	-
33	Revere, ...	25,178	20	-	-	-	-	9	-	-	-	-	-
34	CITIES AND TOWNS, 10,000-25,000.	513,600	624	-	1	29	-	60	5	5	-	134	3
35	Gloucester, ...	24,478	35	-	-	-	-	1	-	1	-	2	-
36	Beverly, ...	22,959	24	-	-	3	-	1	-	-	-	-	-
37	North Adams, ...	22,035	30	-	-	-	-	-	-	-	-	-	-
38	Northampton, ...	21,654	33	-	-	-	-	1	-	-	-	2	-
39	Peabody, ...	18,625	22	-	-	-	-	2	-	-	-	1	-
40	Attleboro, ...	18,480	30	-	1	2	-	2	1	-	-	7	-
41	Westfield, ...	18,411	18	-	-	2	-	1	-	-	-	-	-
42	Leominster, ...	17,646	23	-	-	2	-	20	1	-	-	4	-
43	Melrose, ...	16,880	18	-	-	-	-	-	-	-	-	-	-
44	Watertown, ...	16,515	22	-	-	-	-	1	-	-	-	-	-
45	Woburn, ...	16,410	26	-	-	-	-	-	-	-	-	-	-
46	Gardner, ...	16,376	13	-	-	5	-	1	1	-	-	1	-
47	Framingham, ¹	15,860	-	-	-	2	-	-	-	-	-	1	-
48	Newburyport, ...	15,311	26	-	-	-	-	1	-	1	-	1	-
49	Marlborough, ...	15,250	20	-	-	1	-	-	-	-	-	-	-
50	Arlington, ...	14,889	16	-	-	-	-	1	-	2	-	3	-
51	Southbridge, ...	14,217	12	-	-	-	-	7	-	-	-	-	-
52	Methuen, ...	14,007	16	-	-	2	-	-	-	-	-	2	-
53	Weymouth, ...	13,969	22	-	-	-	-	-	-	-	-	-	-

¹ Boston and Framingham death returns for February not received at the office of the Secretary of the Commonwealth April 15.

TO THE PUBLIC HEALTH, FEBRUARY, 1916.

19C		38A		7		28		29-35		1		8		61A		26		100		107		Line No.
Mumps.		Ophthalma Neonatorum.		Scarlet Fever.		Pulmonary Tuberculosis.		Tuberculosis, Other Forms.		Typhoid Fever.		Whooping Cough.		Cerebro-spinal Meningitis.		Pellagra.		Septic Sore Throat.		Trichinosis.		
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
136	-	175	-	816	12	650	293	43	44	44	12	812	21	19	9	3	1	14	6	5	1	1
35	-	64	-	227	-	227	-	8	-	12	-	160	-	7	-	2	-	6	-	2	-	2
3	-	7	-	33	-	26	20	5	3	1	-	1	-	1	2	-	-	-	-	2	1	5
50	-	30	-	71	1	122	73	5	9	10	5	39	4	3	1	-	-	-	2	-	-	6
6	-	11	-	10	1	32	20	2	2	3	2	13	1	-	-	-	-	-	-	-	-	7
7	-	5	-	10	-	34	21	-	3	2	2	11	2	-	-	-	-	-	-	-	-	8
24	-	9	-	21	-	24	20	1	1	-	-	47	1	3	1	-	-	-	1	-	-	9
13	-	2	-	11	-	19	5	1	2	5	1	-	-	-	-	-	-	-	-	-	-	10
15	-	3	-	19	-	13	7	1	1	-	-	18	-	-	-	-	-	-	1	-	-	11
-	-	20	-	106	2	68	35	4	8	4	1	74	4	1	1	-	-	1	1	-	-	12
-	-	2	-	47	1	14	6	1	1	1	-	5	-	-	-	-	-	-	1	-	-	13
7	-	4	-	15	1	17	7	2	2	2	1	13	1	-	-	-	-	1	-	-	-	14
8	-	5	-	20	-	18	13	1	3	-	-	22	3	1	1	-	-	-	-	-	-	15
-	-	2	-	16	-	12	4	-	1	-	-	32	-	-	-	-	-	-	-	-	-	16
10	-	26	-	140	5	79	43	17	11	6	2	149	7	3	1	-	-	-	1	1	-	18
1	-	5	-	11	1	6	4	3	1	-	-	3	-	-	-	-	-	-	-	-	-	19
1	-	1	-	8	1	8	1	1	1	2	1	8	1	-	-	-	-	-	-	-	-	20
-	-	6	-	9	-	9	2	4	-	-	-	6	1	2	1	-	-	-	-	-	-	21
-	-	-	-	7	-	3	1	-	1	3	-	17	-	-	-	-	-	-	-	1	-	22
1	-	1	-	35	2	1	4	-	1	-	-	5	-	-	-	-	-	-	-	-	-	23
5	-	1	-	8	-	5	2	1	-	-	-	21	2	-	-	-	-	-	-	-	-	24
-	-	2	-	8	-	6	4	1	-	-	-	5	-	-	-	-	-	-	-	-	-	25
-	-	3	-	13	-	3	1	1	-	-	-	20	1	-	-	-	-	-	-	-	-	26
-	-	1	-	5	-	7	2	4	3	1	1	1	-	-	1	-	-	-	-	-	-	27
2	-	-	-	10	-	2	2	-	1	-	-	28	-	-	-	-	-	-	-	-	-	28
-	-	2	-	7	-	1	1	-	-	-	-	7	-	-	-	-	-	-	1	-	-	29
-	-	2	-	8	-	5	5	-	1	-	-	28	2	-	-	-	-	-	-	-	-	30
-	-	1	-	4	-	16	7	1	1	-	-	-	-	-	-	-	-	-	-	-	-	31
-	-	1	-	2	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	32
7	-	11	-	97	1	63	40	2	5	2	2	106	2	1	2	1	1	2	1	-	-	34
-	-	1	-	-	-	1	1	-	-	-	-	5	2	-	-	-	-	-	-	-	-	35
-	-	-	-	2	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36
-	-	-	-	5	-	6	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	37
-	-	-	-	14	1	6	5	1	-	-	-	2	-	-	-	-	-	-	-	-	-	38
-	-	-	-	2	-	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39
1	-	1	-	4	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40
-	-	1	-	2	-	1	3	-	-	-	-	3	-	-	-	-	-	1	-	-	-	41
-	-	1	-	10	-	2	1	-	2	-	-	3	-	-	-	-	-	-	-	-	-	42
-	-	-	-	-	-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-	43
-	-	1	-	2	-	1	3	-	1	-	-	-	-	-	-	-	-	-	-	-	-	44
-	-	1	-	5	-	2	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	45
1	-	-	-	11	-	1	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	46
-	-	1	-	-	-	3	2	-	-	-	-	8	-	-	-	-	-	1	-	-	-	47
2	-	-	-	5	-	2	1	-	-	1	1	-	-	-	1	-	-	-	-	-	-	48
-	-	-	-	-	-	4	1	-	-	-	-	8	-	-	1	-	-	-	-	-	-	49
-	-	-	-	-	-	1	1	-	-	1	-	-	-	-	1	-	-	-	-	-	-	50
-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	51
-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52
-	-	-	-	2	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation taken by State as of April 15, 1915.	Total Deaths from All Causes.	63A		19A		9		19B		6	
				Ante- rior Polio- myeli- tis.		Chick- en Pox.		Diph- theria.		Ger- man Mea- sles.		Mea- sles.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	Milford, ...	13,684	11	-	-	-	-	2	-	1	-	-	-
2	Adams, ...	13,218	6	-	-	-	-	1	-	-	-	18	-
3	Clinton, ...	13,192	25	-	-	-	-	-	1	-	-	1	-
4	Plymouth, ...	12,926	30	-	-	-	-	3	1	-	-	1	-
5	Wakefield, ...	12,781	5	-	-	-	-	-	-	-	-	3	-
6	Winthrop, ...	12,758	11	-	-	2	-	1	-	-	-	45	-
7	Greenfield, ...	12,618	14	-	-	-	-	-	-	-	-	-	-
8	Webster, ...	12,565	20	-	-	-	-	-	-	-	-	12	3
9	West Springfield, ...	11,339	7	-	-	-	-	-	-	-	-	5	-
10	Danvers, ...	11,177	24	-	-	4	-	-	-	-	-	-	-
11	Natick, ...	11,119	13	-	-	-	-	-	-	-	-	-	-
12	Dedham, ...	11,043	9	-	-	4	-	-	-	-	-	-	-
13	Norwood, ...	10,977	14	-	-	-	-	1	-	-	-	-	-
14	Saugus, ...	10,226	13	-	-	-	-	1	-	-	-	25	-
15	Winchester, ...	10,005	16	-	-	-	-	2	-	-	-	-	-
16	Towns, 5,000-10,000.	362,941	446	-	-	105	-	25	1	6	-	360	1
17	Towns, 2,500-5,000.	176,276	207	-	-	40	-	16	2	2	-	44	2
18	Towns under 2,500.	216,326	279	2	-	51	-	19	1	3	-	168	2

In addition to the above, there was 1 case of dysentery in Boston; 1 case of anthrax in Worcester and 1 in Peabody; 1 case of tetanus in Worcester and 1 case and 1 death in Springfield; 1 case of malaria in Newton; and 1 case of trachoma in Webster.

TO THE PUBLIC HEALTH — *Concluded.*

19C		38A		7		28		29-35		1		8		61A		26		100		107		Line No.
Mumps.		Ophthal- mia Neona- torum.		Scar- let Fever.		Pulmo- nary Tuber- culosis.		Tuber- culosis, Other Forms.		Ty- phoid Fever.		Whoop- ing Cough.		Cere- bro- spinal Mening- itis.		Pella- gra.		Septic Sore Throat.		Trichi- nosis.		
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
-	-	1	-	3	-	1	2	-	-	-	-	21	-	-	-	-	-	-	-	-	-	1
-	-	1	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
-	-	-	-	2	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
-	-	-	-	1	-	3	1	-	1	-	-	4	-	-	-	-	-	-	-	-	-	5
-	-	-	-	3	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
-	-	1	-	9	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
-	-	-	-	-	-	1	3	-	1	-	-	2	-	-	-	-	-	-	-	-	-	10
-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	1	-	-	-	-	-	11
-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
2	-	-	-	1	-	-	2	1	-	-	-	1	-	-	-	-	-	-	-	-	-	13
-	-	1	-	3	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
-	-	-	-	2	-	-	1	-	-	-	-	4	-	-	-	-	-	-	-	-	-	15
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	-	10	-	70	3	34	38	2	5	3	1	117	1	-	1	-	-	2	-	-	-	16
5	-	5	-	39	-	17	14	-	1	2	-	43	2	1	-	-	-	1	1	-	-	17
4	-	2	-	33	-	14	32	-	2	4	1	73	1	2	1	-	-	2	-	-	-	18

MASSACHUSETTS STATE DEPARTMENT OF HEALTH.

Commissioner, ALLAN J. McLAUGHLIN, M.D.

Division of Administration,	. . .	
Division of Sanitary Engineering,	. . .	Director and Chief Engineer, X. H. GOODNOUGH, C.E.
Division of Communicable Diseases,	. . .	Director, E. R. KELLEY, M.D.
Division of Water and Sewage Laboratories,		Director and Chemist, H. W. CLARK.
Division of Biologic Laboratories,	. . .	Director and Pathologist, MILTON J. ROSENAU, M.D.
Division of Food and Drugs,	. . .	Director and Analyst, HERMANN C. LYTHGOE.
Division of Hygiene,	. . .	Director, SELSKAR M. GUNN.

Public Health Council.

ALLAN J. McLAUGHLIN, M.D., *Chairman.*

WM. T. SEDGWICK, Ph.D.	JOSEPH E. LAMOUREUX, M.D.
GEORGE C. WHIPPLE, S.B.	WM. J. GALLIVAN, M.D.
DAVID L. EDBALL, M.D.	JOHN T. WHEELWRIGHT.

State District Health Officers.

The Southeastern District,	. . .	ADAM S. MACKNIGHT, M.D., Fall River.
The Eastern District,	. . .	MERRILL E. CHAMPION, M.D., Wollaston.
The Northeastern District,	. . .	LYMAN A. JONES, M.D., Swampscott.
The North Midland District,	. . .	CHARLES E. SIMPSON, M.D., Lowell.
The South Midland District,	. . .	WILLIAM W. WALCOTT, M.D., Natick.
The Wachusett District,	. . .	LEWIS FISH, M.D., Fitchburg.
The Connecticut Valley District,	. . .	JOHN S. HITCHCOCK, M.D., Northampton.
The Berkshire District,	. . .	STANLEY H. OSBORN, M.D., North Adams.

PUBLIC HEALTH BULLETIN

ISSUED MONTHLY

BY THE

STATE DEPARTMENT OF HEALTH
OF MASSACHUSETTS



MAY, 1916

Vol. 3, No. 5

ALLAN J. McLAUGHLIN, M.D., *Commissioner*

The Common Health of the Commonwealth

Entered as Second-class Matter Oct. 26, 1914, at the Post Office at Boston, Mass.,
under the Act of Aug. 24, 1912

CONTENTS.

	PAGE
The Work of the Milk and Baby Hygiene Association, ...	91
Poverty and Tuberculosis, ...	92
Résumé of Communicable Diseases for April, 1916, ...	94
Food and Drugs, ...	96
Quarterly Report on Cold Storage, ...	98
Report of the Bacteriological Laboratory, ...	98
New Legislation, ...	99
Resolve providing for an Investigation by the State Department of Health of Non-pulmonary Tuberculosis (resolve, chapter 62), ...	99
An Act relative to Inspectors and Collectors of Milk (general act, chapter 134),	100
An Act relative to the Slaughtering of Neat Cattle, Sheep or Swine not in- tended for Sale (general act, chapter 139), ...	100
An Act relative to Untrue and Misleading Advertisements (general act, chapter 149), ...	101
An Act relative to the License Fee for Slaughterhouses in Towns of Less than Ten Thousand Inhabitants (general act, chapter 153), ...	101
An Act to authorize the State Department of Health to perform Certain Serv- ices in its Laboratory for the Department of Animal Industry (general act, chapter 155), ...	102
An Act relative to the Standard of Vinegar and to the Sale thereof (general act, chapter 189), ...	102
Cases and Deaths from Diseases Dangerous to the Public Health for Cities and Towns, March, 1916, ...	104

THE WORK OF THE MILK AND BABY HYGIENE ASSOCIATION.

THE seventh annual report of the Milk and Baby Hygiene Association of Boston shows that during the year 1915 the association gave medical and nursing supervision to 4,792 babies during their first year of life. In 1914 the association cared for 1 baby out of every 5 born in the city of Boston. In 1915 it had nearly reached the ratio of 1 baby out of every 4 born.

The function of the association, briefly stated, is to keep well babies well. The three ways by which this end is attained are —

1. The encouragement of breast feeding.
2. The provision of pure milk at cost for mothers unable to nurse their babies sufficiently or at all.
3. The teaching of mothers, by specially trained physicians and nurses, not only proper infant feeding but also proper infant care and hygiene.

The following table gives comparative figures of the work during the last six years: —

Comparative Statistics 1910-15.

	Number of Babies supervised during the Year.	Number of Visits by Babies to Conferences.	Number of Home Visits by Nurses.
1910, ...	1,870	10,847	28,685
1911, ...	2,827	10,972	32,156
1912, ...	3,026	11,451	38,659
1913, ...	3,421	13,754	41,945
1914, ...	4,097	19,578	50,275
1915, ...	4,792	25,515	53,032

The work of the association is carried on from 12 stations located in the more crowded sections of the city. At these stations pure, clean milk is supplied to the mothers at cost, but the figures show that of the babies under care of the association only 50 per cent. were bottle fed. The efforts made in instructing mothers in the home modification of milk have so far progressed that of the babies on artificial feeding only 6 per cent. are dependent on laboratory modifications.

The work of the association is entirely educational and preventive, the value of the work being dependent upon the intimate contact of the mothers and the physicians and nurses. Medical conferences are held in each station once or twice a week, where the mothers have the opportunity of consulting the physician on the proper care and feeding of their babies. The average attendance at conference was 35 in 1915. This was an increase in attendance of 30 per cent. over 1914, while the increase in the number of babies supervised was only 15 per cent.

The staff of 14 nurses made during the year 53,032 home visits. The individual home instruction of the mother by these nurses is the most important phase of this work.

The mortality rate for the association was only 2.3 per cent. This figure should not be compared with the infant mortality rate of the city of Boston or the State, because these figures cover only part of the first year of life, as babies are not usually admitted to supervision until one month of age or older. A comparison of the mortality statistics of the babies under the care of the association during the years 1911 and 1915 shows that in 1915 the mortality was 4 per cent. lower than in 1911. The advantage of clean milk, proper feeding and supervision is shown by the fact that fewer babies died of gastrointestinal diseases than of diseases of the respiratory system.

It is hoped that in the coming year the association may increase the extent of its work, as there are still many sections in the city not covered by stations.

POVERTY AND TUBERCULOSIS.

POVERTY and tuberculosis — tuberculosis and poverty! These are the essential facts which force themselves to the attention of every investigator who faces the problem of that disease. The tenement house district of Cincinnati yields a tuberculosis morbidity just three times as great as the areas where better housing prevails. In 197 families in which tuberculosis existed the average monthly income for a family of four was approximately \$57. After paying the pro rata share for food and rent, a balance of \$5.13 remained for each individual to meet all other expenses. Such a low subsistence level works like black magic in the spread of tuberculosis. Moreover, — and this is a point over which the public should ponder, — the home of the average wage earner was found to be far less sanitary than the average factory and workshop. In regard to all the factors which make for healthful living, ventilation, sufficient

light, proper temperature and freedom from overcrowding the score was in favor of the factory in nearly every instance.

The city of Cincinnati realized that her tuberculosis death rate was 50 per cent. above the average, and that it had failed to manifest a tendency to decline. She felt no qualms in making this admission. Rather, she determined that she would learn why, with an efficient health department and favorable climatic influences, she was suffering from twice the mortality from that disease as her neighbor, Pittsburg. Accordingly, the United States Public Health Service was requested to make a thorough study of the situation and submit a report. To show that something more than mere academic interest obtained, 19,932 workers in 154 factories of the city voluntarily submitted to a physical examination.

The conclusions reached point directly to the close connection between poverty and tuberculosis. The great factor underlying the entire problem was seemingly that of economic conditions. One-sixth of all tuberculosis cases came from cheap lodging houses. Alcoholism was a prominent cause, and often accelerated the course of the disease. Occupational hazards and bad working conditions were apparently responsible for about 20 per cent. of the cases, but in the majority of instances these hazards were not necessarily inherent in the occupation. Previous tuberculosis in the family occurred in practically a third of all the cases investigated. Dissipation, overcrowding, bad housing and innate lack of personal responsibility were also listed as causes.

An interesting feature of the report, and one which has not previously been dwelt upon in studies of this character, relates to the effect of immigration and the rate of growth of the population of a city upon the tuberculosis death rate. It is shown that cities with a population composed largely of racial stock having a limited resistance to tuberculosis are subject to a high mortality rate from that disease, while centers having a slow rate of population increase are likewise subject to a high tuberculosis rate. The evidence is submitted in a comparative table covering sixteen American cities. Almost without exception those with a high percentage of Irish, Scandinavian and German stock, and those in which the negro population is relatively large, have a correspondingly high mortality, while those where the Italian and Jewish element is proportionately great have a low tuberculosis death rate. Similarly, such cities as Detroit and Cleveland, with high rates of population increase, show a low tuberculosis mortality, while Cincinnati and Baltimore with a relatively small population increase have a high tuberculosis rate. Doubtless the true

explanation of this discrepancy is that advanced by the authors, namely, that where the population increase is rapid new buildings are erected to take the place of old insanitary structures, and better housing conditions prevail.

RÉSUMÉ OF COMMUNICABLE DISEASES FOR APRIL, 1916.

Measles and whooping cough continued to hold the most prominent place in the communicable disease reports during April. The outbreak of anthrax at Woburn and Winchester and the presence of smallpox in Fitchburg are the most striking items of the month.

Measles continues to be the greatest quantitative factor in the morbidity returns. This infection has spread to every part of the State. The region of greatest prevalence is the eastern district, of which Brockton is the center. The Connecticut valley district, with Springfield as its center, is running a close second. Reports show gradual extension of the disease to many of the smaller cities and towns. There has been a great improvement in the reporting of measles.

During April the following cities and towns exceeded their measles endemic index (endemic index signifies the average for five years of reported cases exclusive of epidemics. This index is applied to each city and town for each month for every disease):—

[The numbers in parentheses after the name of each city and town indicate the endemic index for that city or town. The numbers without parentheses indicate the cases reported during the current month.]

Abington, ...	(2)	68	Methuen, ...	(4)	44
Attleboro, ...	(1)	28	Montague, ...	(1)	42
Brockton, ...	(25)	824	New Marlborough, ...	(1)	11
Bridgewater, ...	(3)	19	Norton, ...	(1)	16
Duxbury, ...	(1)	30	Northbridge, ...	(1)	29
Fitchburg, ...	(4)	104	Randolph, ...	(1)	21
Framingham, ...	(28)	52	Springfield, ...	(82)	455
Groveland, ...	(1)	15	Topsfield, ...	(1)	17
Hanson, ...	(1)	21	Tyngsborough, ...	(1)	26
Holbrook, ...	(3)	19	Wareham, ...	(1)	17
Ludlow, ...	(1)	93	Whitman, ...	(1)	253
Lynn, ...	(14)	113	Worcester, ...	(69)	111
Marshfield, ...	(1)	14			

Scarlet fever continues to decrease. This is true in comparing last month with April, 1915. The most gratifying point is the con-

tinued low fatality. While there have been no great outbreaks of scarlet fever, a number of cities and towns have exceeded their scarlet fever endemic index.

Ayer, ...	(1)	4	Marlborough, ...	(2)	7
Danvers, ...	(1)	5	Methuen, ...	(1)	5
Easthampton, ...	(1)	5	Natick, ...	(3)	7
Hatfield, ...	(1)	3	Quincy, ...	(7)	18
Leominster, ...	(3)	10	Springfield, ...	(17)	35
Malden, ...	(8)	15	West Boylston, ...	(1)	3

Whooping cough has been less prevalent than during last month. There were more cases reported in April, 1916, than in the same month, 1915. This is probably due to better reporting. The cities and towns that exceeded their whooping cough endemic index are well scattered throughout the State.

Amherst, ...	(2)	9	Greenfield, ...	(1)	13
Amesbury, ...	(1)	12	Lexington, ...	(1)	18
Brockton, ...	(5)	31	Sheffield, ...	(1)	24
Cambridge, ...	(9)	17	Spencer, ...	(1)	14
Everett, ...	(4)	13	Wellesley, ...	(1)	40
Fitchburg, ...	(6)	22			

Diphtheria is holding its own. There has been no marked change in the character or distribution of the infection. The continued low fatality (7.4 per cent.) is the most gratifying point to be noted. No serious outbreaks have been reported in any part of the State. The following cities and towns have exceeded their diphtheria endemic index:—

Brockton, ...	(7)	13	Lawrence, ...	(11)	34
Everett, ...	(5)	12	Lynn, ...	(17)	25
Fall River, ...	(14)	21	Malden, ...	(10)	26
Framingham, ...	(1)	9	Natick, ...	(1)	5

Tuberculosis.—The number of cases of tuberculosis reported was about the same as last month. This was considerably below the five-year average for the month of April.

Typhoid fever has shown a slight increase over the number of cases for last month and the same month of last year. However, this disease remains far below the five-year average. The fatality rate

(12.4 per cent.) more nearly approaches the normal experience. This means probably more complete reporting of the disease.

Epidemics. — During the month of April there have been three additional cases of anthrax reported. They were distributed as follows: Clinton (1), Winchester (1) and Woburn (1). All of the infected persons except one have been handlers of dried China hides; 14 of the cases have been tannery workers in Woburn and Winchester. The epidemiological investigation shows that all of these cases came from infected hides in a single cargo shipped from Hankow, China. A careful study is being made of the waste products and drainage from the infected tanneries, and efforts are being made to prevent the further importation of infected material.

Rare Diseases. — There have been 6 additional cases of smallpox reported in Fitchburg. In all of these the infection has been spread by contact with other cases. All have been removed to the smallpox hospital, and all contacts have been vaccinated. The interesting point about this outbreak is that only 1 of the 9 cases has a clear history of successful vaccination.

Pellagra has been reported from Worcester (1), Cambridge (1) and Northampton (1). All of these cases are receiving hospital treatment.

Trichinosis has been reported from Springfield (1) and Boston (1).

Trachoma has been reported from Worcester (3), Northbridge (1) and Boston (4).

Malaria has been reported from Springfield (1), Newton (1) and Boston (2).

FOOD AND DRUGS.

During the month of April, 1916, samples were collected in Arlington, Attleboro, Barnstable, Boston, Beverly, Brockton, Brookline, Canton, Carlisle, Chelsea, Concord, Danvers, Essex, Everett, Fairhaven, Fitchburg, Gloucester, Ipswich, Lawrence, Lowell, Lynn, Malden, Mansfield, Marblehead, Maynard, Medford, Melrose, Milford, Needham, New Bedford, Quincy, Salem, Somerville, Stoughton, Taunton, Uxbridge, Webster, Westborough, Winchester and Worcester.

Of the 951 samples collected, 794 were of milk, 120 of foods other than milk, and 37 were drugs. Four samples of drugs and 34 of foods were adulterated, and 251 milk samples were below standard. Nine samples of milk were skimmed, 13 contained added water, and 2 contained dirt. Of the various foods collected the most attention was paid to maple sugar, of which 15, or 45 per cent., contained added cane sugar. Twenty-seven samples of sausages were examined, of which 5, or 19 per

cent., contained added starch in excess of 2 per cent. Thirteen samples of eggs were examined, of which 9 were found to be decomposed. Two samples of butter were submitted by citizens and the samples were found to be rancid. One sample of lemon extract was deficient in lemon oil, and 1 sample of Hamburg steak contained preservative without the necessary label. One sample of beef taken from cold storage was found to be decomposed. The adulterated drugs represented 1 sample of alcohol which contained added water, 1 sample of spirit of anise, and 2 samples of spirit of peppermint slightly below the U. S. P. requirements.

Nine convictions for violation of the food, drug and slaughtering laws were obtained, the total fines imposed being \$185. For violation of the milk law, Jeremie Champagne of Lowell and Joseph D. Silva of Attleboro were fined. George G. Ormond of Quincy, Robert Wagner of Fitchburg, and Louis Levine of Roxbury, on two counts, were convicted for violation of the food law, and paid the fines imposed. Fred P. Allen of Fitchburg was convicted and paid a fine for violation of the drug law. Max Steinberg of Lawrence and Fred T. Lyman of Greenfield were convicted for violation of the slaughtering laws.

Twenty-nine confiscations were made, the total weight of the articles confiscated being 5,752½ pounds; these consisted of 5,580 pounds of decomposed eggs taken from cold storage and 5 carcasses of veal weighing 172½ pounds, 1 of which was immature, 2 unstamped, 1 decomposed and 1 stillborn.

In accordance with the Acts of 1902, chapter 272, the following is the list of adulterated articles of food collected from producers:—

Two samples of watered milk from Herman Braverman, Raynham, Mass.; 2 samples of milk containing dirt from Charles G. Bashaw, Newburyport, Mass.; 3 samples of watered milk from Edward S. Ricker, Carlisle, Mass.

QUARTERLY REPORT ON COLD STORAGE.

The following articles were placed in the cold-storage warehouses during the months of January, February and March, 1916: 420,360 dozens case eggs; 162,054 pounds broken-out eggs; 1,153,681½ pounds butter; 3,909,261 pounds poultry; 13,050 pounds game, and 36 packages game on which no weight was given; 18,735,200½ pounds fresh meat; 1,463,472 pounds fresh meat products; and 4,394,967 pounds fresh fish.

The following quantities of butter and eggs were held in the cold-storage warehouses on April 1, 1916: 61,978 dozens case eggs; 126,780 pounds broken-out eggs; 1,054,273 pounds butter.

REPORT UPON THE WORK OF THE BACTERIOLOGICAL LABORATORY FOR THE MONTH OF APRIL, 1916.

The following gives the total number of bacteriological examinations made in the laboratory of the State Department of Health during the month of April, 1916: —

	Number of Examina- tions.	DIAGNOSIS.		RELEASE.	
		Positive.	Negative.	Positive.	Negative.
Diphtheria, ...	1,276	85	1,035	51	105

	Number of Exami- nations.	Positive.	Negative.	*Atypical.
Tuberculosis, ...	318	69	249	
*Typhoid fever (Widal test), ...	89	9	78	2
Typhoid fever (culture test), ...	9	—	9	
Malaria, ...	2	—	2	
Miscellaneous, ...	91			

Total number of examinations made, 1,785.

The following gives the total number of biological products and diagnostic outfits distributed by the State Department of Health during the month of April, 1916: —

Biological Products.

Diphtheria antitoxin: —

12,000 units (special for the Boston City Hospital), ...	270 bottles.
3,000 units, ...	2,748 bottles.
1,500 units, ...	1,011 bottles.
750 units, ...	343 bottles.

Smallpox vaccine: —

Capillary tubes, ...	4,350
Bulk, ...	300

Typhoid vaccine: —

Ampoules, ...	1,311
Bulk, ...	200

Antimeningitis serum, ... 82 bottles.

Silver nitrate solution, ... 2,332 ampoules.

Diagnostic Outfits.

Culture tubes, ...	1,157
Culture media, ...	2,119
Sputum bottles, ...	558
Widal outfits, ...	118
Bile outfits, ...	23
Malaria outfits, ...	46

NEW LEGISLATION.

RESOLVES, CHAPTER 62.

RESOLVE PROVIDING FOR AN INVESTIGATION BY THE STATE DEPARTMENT OF HEALTH OF NON-PULMONARY TUBERCULOSIS.

Resolved, That the state department of health is hereby authorized and directed to investigate the matter of non-pulmonary tuberculosis with special reference to children and adolescents throughout the commonwealth. The department shall determine so far as possible: —

First, the present number of cases of non-pulmonary tuberculosis in the commonwealth, and their situation.

Second, the number of hospital beds now available for the care of such cases.

Third, the number of additional hospital beds needed for the proper care and treatment of such cases, and the proper situation of such beds.

Fourth, whether such additional beds, if needed, should be supplied by additions to, or enlargements of, existing general or other hospitals, or by providing

new institutions designed for the purpose of treating non-pulmonary tuberculous cases exclusively.

Fifth, how such additions to or enlargements of general or other hospitals, or such new institutions, if they are needed, should be financed and administered.

The said department may hold such public or private hearings as it may deem proper for the purpose aforesaid, and shall report to the next general court, on or before the second Wednesday in January, with its conclusions and such recommendations and drafts of proposed legislation as it may deem expedient. To carry out the purposes of this resolve, the department may expend a sum not exceeding five hundred dollars. [*Approved April 27, 1916.*]

GENERAL ACTS, CHAPTER 134.

AN ACT RELATIVE TO INSPECTORS AND COLLECTORS OF MILK.

Be it enacted, etc., as follows:

Inspectors of milk and collectors of milk samples shall have authority to take samples from milk, intended for sale in their respective cities and towns, wherever, within the commonwealth, such milk is produced, stored or transported, but this act shall not be construed to permit of any interference by such inspectors or collectors with milk in the course of interstate commerce. [*Approved April 18, 1916.*]

GENERAL ACTS, CHAPTER 139.

AN ACT RELATIVE TO THE SLAUGHTERING OF NEAT CATTLE, SHEEP OR SWINE NOT INTENDED FOR SALE.

Be it enacted, etc., as follows:

Section one hundred and five of chapter seventy-five of the Revised Laws, as amended by section two of chapter three hundred and twelve of the acts of the year nineteen hundred and two, by section two of chapter two hundred and twenty of the acts of the year nineteen hundred and three, by section six of chapter three hundred and twenty-nine of the acts of the year nineteen hundred and eight, and by section two of chapter two hundred and forty-eight of the acts of the year nineteen hundred and twelve, is hereby further amended by inserting after the word "animals", in the fifth line, the words: — intended for sale, — so as to read as follows: — *Section 105.* The provisions of the six preceding sections shall not apply to a person not engaged in such business, who, upon his own premises and not in a slaughter house, slaughters his own neat cattle, sheep or swine, but the carcass of any such animals, intended for sale, shall be inspected, and, unless condemned, shall be stamped or branded according to the provisions of section one hundred and three of chapter seventy-five of the Revised Laws, as set forth in chapter two hundred and twenty of the acts of the year nineteen hundred and three, and as amended by chapter four hundred and seventy-one of the acts of the year nineteen hundred and nine and by section five of chapter two hundred and ninety-seven of the acts of the year nineteen hundred and eleven, by an inspector at the time of slaughter. [*Approved April 20, 1916.*]

GENERAL ACTS, CHAPTER 149.

AN ACT RELATIVE TO UNTRUE AND MISLEADING ADVERTISEMENTS.

Be it enacted, etc., as follows:

SECTION 1. Any person who, with intent to sell or in any wise dispose of merchandise, securities, service, or anything offered by such person, directly or indirectly, to the public for sale or distribution, or who with intent to increase the consumption of or demand for such merchandise, securities, service, or other thing, or to induce the public in any manner to enter into any obligation relating thereto, or to acquire title thereto, or an interest therein, makes, publishes, disseminates, circulates, or places before the public, or causes, directly or indirectly, to be made, published, disseminated, circulated, or placed before the public within the commonwealth, in a newspaper or other publication, or in the form of a book, notice, handbill, poster, bill, circular, pamphlet, or letter, or in any other way, an advertisement of any sort regarding merchandise, securities, service, or anything so offered to the public, which advertisement contains any assertion, representation, or statement of fact which is untrue, deceptive, or misleading, and which such person knew, or might on reasonable investigation have ascertained to be untrue, deceptive, or misleading, shall be guilty of a misdemeanor and shall be punished by a fine of not less than ten or more than five hundred dollars for each offence: *provided, however*, that the provisions of this act shall not apply to any owner, publisher, printer, agent or employee of a newspaper or other publication, periodical or circular, or to any agent of the advertiser who in good faith and without knowledge of the falsity or deceptive character thereof publishes, causes to be published, or participates in the publication of such advertisement.

SECTION 2. The term "person" as used in section one shall include a partnership, corporation or association.

SECTION 3. Chapter four hundred and eighty-nine of the acts of the year nineteen hundred and twelve, as amended by chapter two hundred and eighty-eight of the acts of the year nineteen hundred and fourteen, is hereby repealed. *[Approved April 24, 1916.]*

GENERAL ACTS, CHAPTER 153.

AN ACT RELATIVE TO THE LICENSE FEE FOR SLAUGHTER HOUSES IN TOWNS HAVING LESS THAN TEN THOUSAND INHABITANTS.

Be it enacted, etc., as follows:

SECTION 1. In towns having less than ten thousand inhabitants the annual license fee for carrying on the business of slaughtering neat cattle, sheep or swine shall be such sum, not exceeding one hundred dollars, as the selectmen shall fix.

SECTION 2. So much of section one hundred of chapter seventy-five of the Revised Laws, as amended by section two of chapter two hundred and ninety-seven of the acts of the year nineteen hundred and eleven, as is inconsistent herewith shall not apply to the provisions of this act.

SECTION 3. This act shall take full effect in any town to which it applies upon its acceptance by a majority vote of the voters thereof present and voting thereon at any annual town meeting; otherwise it shall not take effect. For the purpose of such acceptance this act shall take effect upon its passage. [Approved April 24, 1916.]

GENERAL ACTS, CHAPTER 155.

AN ACT TO AUTHORIZE THE STATE DEPARTMENT OF HEALTH TO PERFORM CERTAIN SERVICES IN ITS LABORATORY FOR THE DEPARTMENT OF ANIMAL INDUSTRY.

Be it enacted, etc., as follows:

SECTION 1. The state department of health is hereby authorized to perform for the department of animal industry upon such terms and conditions as may be agreed upon, such services in its laboratory as may be necessary in the examination of materials from animals suspected of being infected with glanders, tuberculosis, rabies or other diseases of domestic animals.

SECTION 2. This act shall take effect upon its passage. [Approved April 26, 1916.]

GENERAL ACTS, CHAPTER 189.

AN ACT RELATIVE TO THE STANDARD OF VINEGAR AND TO THE SALE THEREOF.

Be it enacted, etc., as follows:

Section sixty-seven of chapter fifty-seven of the Revised Laws, as amended by section two of chapter six hundred of the acts of the year nineteen hundred and eleven and by section one of chapter two hundred and thirty-nine of the General Acts of the year nineteen hundred and fifteen, is hereby further amended by striking out the words "and one half per cent, by weight", in the third line, and inserting in place thereof the word: — grams; by striking out the word "absolute", in the same line, by inserting after the word "acid", in the fourth line, the words: — in one hundred cubic centimeters of the vinegar, — by striking out the word "eight", in the fifth line, and inserting in place thereof the word: — six, — by striking out the words "per cent by weight", in the same line, and inserting in place thereof the word: — grams, — and by inserting after the word "solids", in the sixth line, the words: — in one hundred cubic centimeters of the cider vinegar, — so as to read as follows: — *Section 67.* Vinegar shall contain no added or artificial coloring matter, and shall contain not less than four grams of acetic acid in one hundred cubic centimeters of the vinegar. Cider vinegar shall in addition contain not less than one and six tenths grams of cider vinegar solids in one hundred cubic centimeters of the cider vinegar. If vinegar contains any added or artificial coloring matter, or less than the required amount of acidity, or if cider vinegar contains less than the required amount of acidity or of cider vinegar solids, it shall be deemed to be adulterated. The commissioner of health shall determine or cause to be determined, from time to time, analytical methods for the estimation of solids and of acetic acid in

vinegar, and said methods shall be published in the monthly bulletin of the state department of health. No persons shall estimate the solids or the acetic acid content of vinegar for determining the composition or value of said vinegar as a basis for payment in buying or in selling, or for the purpose of inspection, by methods other than those published as herein described. [*Approved May 10, 1916.*]

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation taken by State as of April 15, 1915.	Total Deaths from All Causes.	63A		19A		9		19B		6	
				Ante- rior Polio- myeli- tis.		Chick- en Pox.		Diph- theria.		Ger- man Mea- sles.		Mea- sles.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	Massachusetts, ...	3,693,310	4,096	5	2	533	-	686	38	46	-	3315	19
2	CITIES OVER 500,000.												
3	Boston, ¹	745,439	-	1	-	156	-	220	-	-	-	510	-
4	CITIES, 150,000-500,000.												
5	Worcester, ...	162,697	282	-	-	5	-	35	2	-	-	176	3
6	CITIES, 100,000-150,000.	554,130	855	-	-	76	-	93	6	8	-	266	1
7	Fall River, ...	124,791	205	-	-	8	-	7	1	2	-	40	-
8	New Bedford, ...	109,568	160	-	-	8	-	5	-	-	-	16	-
9	Cambridge, ...	108,822	153	-	-	35	-	40	3	-	-	27	1
10	Lowell, ...	107,978	164	-	-	2	-	25	1	3	-	17	-
11	Springfield, ...	102,971	173	-	-	23	-	16	1	3	-	166	-
12	CITIES, 50,000-100,000.	396,020	571	1	1	37	-	93	7	5	-	1017	9
13	Lynn, ...	95,803	132	-	1	-	-	30	-	1	-	197	2
14	Lawrence, ...	90,259	153	-	-	14	-	31	2	2	-	77	2
15	Somerville, ...	86,854	101	1	-	5	-	12	4	2	-	3	-
16	Brookton, ...	62,288	96	-	-	18	-	11	-	-	-	726	5
17	Holyoke, ...	60,816	89	-	-	-	-	9	1	-	-	14	-
18	CITIES AND TOWNS, 25,000-50,000.	565,381	698	-	-	70	-	120	12	2	-	306	-
19	Haverhill, ...	49,450	95	-	-	5	-	22	4	-	-	23	-
20	Malden, ...	48,907	54	-	-	5	-	38	3	1	-	12	-
21	Chelsea, ...	43,426	46	-	-	4	-	4	1	-	-	33	-
22	Newton, ...	43,113	41	-	-	3	-	5	-	-	-	49	-
23	Quincy, ...	40,674	39	-	-	2	-	2	-	1	-	26	-
24	Fitchburg, ...	39,656	60	-	-	3	-	15	2	-	-	72	-
25	Pittsfield, ...	39,607	33	-	-	6	-	11	1	-	-	1	-
26	Everett, ...	37,718	33	-	-	6	-	7	1	-	-	9	-
27	Salem, ...	37,200	56	-	-	6	-	2	-	-	-	14	-
28	Taunton, ...	36,161	77	-	-	1	-	1	-	-	-	8	-
29	Brookline, ...	33,490	40	-	-	10	-	1	-	-	-	43	-
30	Medford, ...	30,509	34	-	-	12	-	1	-	-	-	6	-
31	Waltham, ...	30,154	36	-	-	2	-	4	-	-	-	2	-
32	Chicopee, ...	30,138	33	-	-	5	-	-	-	-	-	8	-
33	Revere, ...	25,178	21	-	-	-	-	7	-	-	-	-	-
34	CITIES AND TOWNS, 10,000-25,000.	513,600	656	2	-	60	-	65	7	7	-	281	3
35	Gloucester, ...	24,478	42	-	-	-	-	1	-	-	-	7	-
36	Beverly, ...	22,959	25	-	-	1	-	-	-	-	-	4	-
37	North Adams, ...	22,035	20	-	-	1	-	1	-	-	-	1	-
38	Northampton, ...	21,654	31	-	-	-	-	2	2	2	-	5	-
39	Peabody, ...	18,625	20	-	-	4	-	1	-	1	-	16	-
40	Attleboro, ...	18,480	24	-	-	-	-	9	2	-	-	111	-
41	Westfield, ...	18,411	25	-	-	1	-	-	-	-	-	1	-
42	Leominster, ...	17,646	30	-	-	4	-	3	1	-	-	-	-
43	Melrose, ...	16,880	23	-	-	8	-	2	-	1	-	-	-
44	Watertown, ...	16,515	18	-	-	-	-	3	-	-	-	-	-
45	Woburn, ...	16,410	17	-	-	-	-	6	1	-	-	2	-
46	Gardner, ...	16,376	21	1	-	3	-	6	1	-	-	1	-
47	Framingham, ...	15,860	26	-	-	18	-	1	-	1	-	34	-
48	Newburyport, ...	15,311	24	-	-	-	-	2	-	-	-	-	-
49	Marlborough, ...	15,250	17	-	-	1	-	-	-	-	-	-	-
50	Arlington, ...	14,889	18	-	-	-	-	-	-	-	-	1	-
51	Southbridge, ...	14,217	13	-	-	-	-	6	-	-	-	-	-

¹ Boston death returns for March not received at the office of the Secretary of the Commonwealth May 11.

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation taken by State as of April 15, 1915.	Total Deaths from All Causes.	63A		19A		9		19B		6	
				Ante- rior Polio- myeli- tis.		Chick- en Pox.		Diph- theria.		Ger- man Mea- sles.		Mea- sles.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	Methuen, ...	14,007	15	-	-	1	-	-	-	-	-	17	-
2	Weymouth, ...	13,969	16	1	-	-	-	-	-	-	-	-	-
3	Milford, ...	13,684	22	-	-	-	-	2	-	-	-	4	-
4	Adams, ...	13,218	9	-	-	-	-	-	-	-	-	3	-
5	Clinton, ...	13,192	14	-	-	-	-	-	-	-	-	-	-
6	Plymouth, ...	12,926	13	-	-	-	-	3	-	-	-	3	1
7	Wakefield, ...	12,781	19	-	-	-	-	1	-	-	-	2	-
8	Winthrop, ...	12,758	11	-	-	1	-	3	-	-	-	18	-
9	Greenfield, ...	12,618	18	-	-	1	-	-	-	-	-	-	-
10	Webster, ...	12,565	17	-	-	-	-	1	-	-	-	1	-
11	West Springfield, ...	11,339	12	-	-	2	-	2	-	-	-	42	2
12	Danvers, ...	11,177	38	-	-	1	-	-	-	-	-	1	-
13	Natick, ...	11,119	12	-	-	-	-	1	-	-	-	-	-
14	Dedham, ...	11,043	15	-	-	10	-	-	-	1	-	-	-
15	Norwood, ...	10,977	8	-	-	1	-	9	-	1	-	5	-
16	Saugus, ...	10,226	9	-	-	2	-	-	-	-	-	2	-
17	Winchester, ...	10,005	14	-	-	-	-	-	-	-	-	-	-
18	Towns, 5,000-10,000.	362,941	458	1	1	88	-	35	3	14	-	504	1
19	Towns, 2,500-5,000.	176,276	271	-	-	26	-	10	-	9	-	50	2
20	Towns under 2,500.	216,826	305	-	-	15	-	15	1	1	-	205	-

In addition to the above, there occurred 3 cases of tetanus, 1 in Boston, 1 in Woburn, and 1 in Marlborough, and 2 deaths, 1 in Marlborough and 1 in Milford; 4 cases of pellagra, 1 in Boston, 1 in Newton, 1 in Northampton, 1 in Danvers, and 3 deaths in Danvers; 4 cases of trachoma, 3 in Boston and 1 in Attleboro; 3 cases of trichinosis, 1 in Springfield, 1 in Haverhill, and 1 in Chelsea; and 3 cases of small-pox in Fitchburg.

TO THE PUBLIC HEALTH — *Concluded.*

19C		38A		7		28		29-35		1		8		22		61A		176A		100		Line No.
Mumps.		Ophthal- mia Neona- torum.		Scar- let Fever.		Pulmo- nary Tuber- culosis.		Tuber- culosis, Other Forms.		Ty- phoid Fever.		Whoop- ing Cough.		An- thrax.		Cere- bro- spinal Menin- gitis.		Dog Bite.		Septic Sore Throat.		
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
-	-	-	-	2	-	-	2	-	-	1	1	-	-	-	-	-	-	-	-	-	-	1
-	-	-	-	1	-	4	2	-	-	-	-	-	9	-	-	-	1	-	-	-	-	2
-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
-	-	-	-	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	5
-	-	-	-	7	-	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
-	-	1	-	5	-	1	1	-	-	-	-	2	1	-	-	-	-	-	-	-	-	7
-	-	-	-	10	-	1	-	-	-	-	-	10	1	-	-	-	-	-	-	-	-	8
-	-	1	-	1	-	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	9
2	-	-	-	1	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
1	-	-	-	-	-	-	-	1	-	-	-	3	-	-	-	-	1	-	-	-	-	11
-	-	-	-	1	-	1	1	-	-	-	-	3	-	-	-	-	-	-	-	-	-	12
1	-	-	-	3	-	1	1	-	-	1	-	20	1	-	-	-	-	-	-	1	-	13
3	-	-	-	18	-	1	-	-	1	-	-	5	1	-	-	-	-	-	-	-	-	14
-	-	-	-	1	-	1	-	-	-	1	-	3	-	-	-	-	-	-	-	-	-	15
-	-	-	-	3	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	16
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
42	-	14	-	110	1	50	24	8	5	3	-	175	4	-	-	2	2	1	-	1	-	18
1	-	3	-	29	2	14	12	-	3	2	-	46	3	-	-	-	-	-	-	-	-	19
8	-	2	-	24	-	16	37	-	1	2	-	72	4	-	-	2	-	-	-	1	-	20

MASSACHUSETTS STATE DEPARTMENT OF HEALTH.

Commissioner, ALLAN J. McLAUGHLIN, M.D.

Division of Administration,	.	.	.	
Division of Sanitary Engineering,	.	.	.	Director and Chief Engineer, X. H. GOODNOUGH, C.E.
Division of Communicable Diseases,	.	.	.	Director, E. R. KELLEY, M.D.
Division of Water and Sewage Laboratories,	.	.	.	Director and Chemist, H. W. CLARK.
Division of Biologic Laboratories,	.	.	.	Director and Pathologist, MILTON J. ROSENAU, M.D.
Division of Food and Drugs,	.	.	.	Director and Analyst, HERMANN C. LYTHGOE.
Division of Hygiene,	.	.	.	Director, SELSKAR M. GUNN.

Public Health Council.

ALLAN J. McLAUGHLIN, M.D., *Chairman.*

WM. T. SEDGWICK, Ph.D.	JOSEPH E. LAMOUREUX, M.D.
GEORGE C. WHIPPLE, S.B.	WM. J. GALLIVAN, M.D.
DAVID L. EDSALL, M.D.	JOHN T. WHEELWRIGHT.

State District Health Officers.

The Southeastern District,	.	.	.	ADAM S. MacKNIGHT, M.D., Fall River.
The Eastern District,	.	.	.	MERRILL E. CHAMPION, M.D., Wollaston.
The Northeastern District,	.	.	.	LYMAN A. JONES, M.D., Swampscott.
The North Midland District,	.	.	.	CHARLES E. SIMPSON, M.D., Lowell.
The South Midland District,	.	.	.	WILLIAM W. WALCOTT, M.D., Natick.
The Wachusett District,	.	.	.	LEWIS FISH, M.D., Fitchburg.
The Connecticut Valley District,	.	.	.	JOHN S. HITCHCOCK, M.D., Northampton.
The Berkshire District,	.	.	.	STANLEY H. OSBORN, M.D., North Adams.

PUBLIC HEALTH BULLETIN

ISSUED MONTHLY

BY THE

STATE DEPARTMENT OF HEALTH
OF MASSACHUSETTS



JUNE, 1916

Vol. 3, No. 6

ALLAN J. McLAUGHLIN, M.D., *Commissioner*

The Common Health of the Commonwealth

Entered as Second-class Matter Oct. 26, 1914, at the Post Office at Boston, Mass.,
under the Act of Aug. 24, 1912

CONTENTS.

	PAGE
Résumé of Communicable Diseases for May, 1916, ...	111
Food and Drugs, ...	115
Report of the Bacteriological Laboratory, ...	116
New Legislation, ...	117
Resolve providing for the Appointment of a Commission to investigate the Ex- tent of the Use of Habit-forming Drugs and the Effectiveness of the Laws per- taining thereto (Resolve, chapter 112), ...	117
An Act to promote the Building and Use of Tuberculosis Hospitals in Cities and Towns (General Act, chapter 197), ...	118
An Act to provide for the Construction by Counties of Tuberculosis Hospitals for Cities and Towns having Less than Fifty Thousand Inhabitants (General Act, chapter 286), ...	119
Cases and Deaths from Diseases Dangerous to the Public Health for Cities and Towns, April, 1916, ...	124

RÉSUMÉ OF COMMUNICABLE DISEASES FOR MAY, 1916.

The outstanding features of the communicable disease situation for May are the unusually high mortality from measles, the low incidence of typhoid fever, and the sharp outbreak of septic sore throat in Watertown.

Prevalence. — The total number of cases of communicable diseases reported for May is about the same as for the corresponding month last year. It is considerably above the five-year average for the month of May. The case incidence per hundred thousand population for May, 1916, was 218, while the average for the five-year period (1910-14) was 190. This increase above the average is due to the unusual prevalence of measles and the better reporting of whooping cough. Measles continues to be the most important single factor in our communicable disease reports. It is prevalent in every part of the State.

Distribution. — The distribution of the various communicable diseases is of interest.

Measles. — Springfield and Brockton remain the centers of greatest intensity in this infection. However, during May the following cities and towns have exceeded their endemic index (endemic index signifies the average for five years of reported cases exclusive of epidemics. This index is applied to each city and town for each month for every communicable disease): —

[The numbers in parentheses after the names of each city and town indicate the endemic index for that city or town. The numbers without parentheses indicate the cases reported during the current month.]

Abington, ...	(2)	43	Erving, ...	(0)	32
Adams, ...	(0)	31	Essex, ...	(1)	9
Amesbury, ...	(1)	12	Fall River, ...	(11)	42
Attleboro, ...	(1)	79	Fitchburg, ...	(16)	55
Avon, ...	(0)	37	Framingham, ...	(24)	37
Bridgewater, ...	(4)	44	Hanson, ...	(0)	15
Brockton, ...	(39)	451	Hanover, ...	(0)	22
Carver, ...	(0)	14	Hardwick, ...	(0)	23
Chatham, ...	(0)	12	Holbrook, ...	(1)	16
Chelmsford, ...	(0)	22	Lowell, ...	(105)	182
Chicopee, ...	(7)	58	Ludlow, ...	(0)	28
Clinton, ...	(2)	43	Lynn, ...	(21)	42
Duxbury, ...	(0)	16	Mansfield, ...	(2)	14
East Bridgewater, ...	(1)	34	Marshfield, ...	(0)	44

Mendon, ...	(0)	42	Springfield, ...	(46)	405
Methuen, ...	(2)	16	Tyngsborough, ...	(0)	21
Montague, ...	(1)	12	Ware, ...	(0)	14
Needham, ...	(0)	11	Wareham, ...	(0)	28
Newton, ...	(81)	168	Warren, ...	(0)	35
Palmer, ...	(1)	12	Westfield, ...	(9)	21
Rockland, ...	(0)	42	Whitman, ...	(2)	35
Rockport, ...	(0)	9	Worcester, ...	(90)	331
Shirley, ...	(0)	13			

Scarlet fever shows a decrease in amount both in comparison with May, 1915, and with the average for the five-year period. The most important focus of infection seems to be at Quincy. From the investigations of the State District Health Officer the disease is apparently being spread by mild and ambulant cases. The following cities and towns have exceeded their scarlet fever endemic index for the month of May: —

Amesbury, ...	(1)	8	Lexington, ...	(0)	6
Bridgewater, ...	(1)	7	Milton, ...	(1)	12
Cambridge, ...	(11)	21	Newburyport, ...	(1)	6
Clinton, ...	(1)	8	North Adams, ...	(0)	7
Dalton, ...	(0)	9	Northampton, ...	(4)	12
East Longmeadow, ...	(1)	8	Peabody, ...	(1)	11
Holyoke, ...	(14)	40	Quincy, ...	(8)	42

Whooping cough has shown a slight increase in the number of reported cases as compared with May, 1915. The considerable increase noted, as compared with the five-year period, is doubtless due to the better reporting of this disease. The following cities and towns have exceeded their whooping cough endemic index for May: —

Amesbury, ...	(0)	7	Fall River, ...	(3)	26
Braintree, ...	(5)	26	Fitchburg, ...	(2)	21
Brockton, ...	(7)	66	Haverhill, ...	(4)	23
Cambridge, ...	(9)	45	Lawrence, ...	(12)	21
Canton, ...	(1)	9	Lexington, ...	(0)	10
Chelsea, ...	(2)	14	Medford, ...	(3)	13
Danvers, ...	(0)	14	Wellesley, ...	(0)	35
Dudley, ...	(0)	24			

Diphtheria shows a gratifying decrease in amount. The case incidence per hundred thousand is considerably lower as compared with May, 1915, and also as compared with the five-year period. There

are at the present time no important foci of diphtheretic infection in the State. However, the following cities and towns have exceeded their endemic index for diphtheria for the month of May:—

Amesbury, ...	(1)	7	Lawrence, ...	(9)	27
Brockton, ...	(9)	26	Oxford, ...	(0)	7
Everett, ...	(4)	10	West Springfield, ...	(0)	5
Fitchburg, ...	(4)	15			

Tuberculosis.—The looked-for increase in the number of reported cases of this disease through the newly established dispensaries is disappointing. During May there was a decrease in the number of reported cases, both in comparison with the same month last year and with the five-year period. It had been hoped that with the dispensaries in good working order we would be getting fuller reports of cases. The subject is now being taken up through the State District Health Officers.

Typhoid Fever.—A remarkably low incidence of typhoid fever is to be noted. Reports for the month show a decreased incidence, both in comparison with May, 1915, and with the five-year period. It is also to be noted that the fatality rate for this disease more nearly approached normal during last month.

Mortality.—As usual the most important single factor in the month's mortality is tuberculosis. The most striking factor, however, is the fact that there were 40 deaths from measles during the month. These deaths were distributed as follows: Boston, 12; Brockton, 7; Worcester 7; Springfield, 4; Chicopee, 2; Fall River, 2, and 1 each from Attleboro, Cambridge, Lawrence, Lynn, New Bedford and Woburn. This is a striking commentary on the generally accepted belief that measles is not a "dangerous disease." Diphtheria with 39 deaths is a striking feature, even though it is below the average. We do not appear to be making satisfactory progress in controlling the mortality from this disease. Scarlet fever and whooping cough combined to cause 32 deaths, while typhoid fever was given but 8 times as a cause of death.

Epidemics.—During the course of the month there was a sharp outbreak of what proved to be septic sore throat in Watertown. Physicians of that town were sending to the local board of health laboratory cultures for a severe type of sore throat. The early diagnosis was that of a staphylococcic infection; later developments have proved that it was a hemolytic streptococci. Investigations showed that all of the families were taking milk from the same milkman. An inspection of the dairies on this producer's route revealed a single

cow with an atrophied quarter from which was obtained a small amount of pus. A special bacteriological examination is under way upon orders from the local board of health. The cow was slaughtered; the entire milk supply has been pasteurized.

Three additional cases of anthrax were reported from Woburn during the month. All the cases reported to date have been handlers of Chinese hides.

The diphtheria situation at the Shirley Industrial School for Boys is improved. There have been no clinical cases for some time, and the few remaining boys with positive cultures are isolated in a camp remote from the rest of the school.

Rare Diseases. — Trachoma was reported from Boston (4), Brookline (1) and Lowell (1). Cerebrospinal meningitis was reported from Boston (3), Methuen (2), Walpole (2), Arlington (1), Ipswich (1), Northampton (1), Somerville (1) and Springfield (1). Malaria was reported from Boston (3), Marblehead (1) and Worcester (1). Pella-gra was reported from Worcester (2), Boston (1), Northampton (1), Taunton (1) and Winchester (1). Septic sore throat was reported from Boston (7), Fall River (4), Somerville (3), Chelsea (1), Chicopee (1) and Westfield (1). Dogbite was reported from Boston (12), Brockton (7), Worcester (7), Springfield (4), Chicopee (2), Fall River (2), and one case each from Attleboro, Cambridge, Lawrence, Lynn, New Bedford and Woburn.

FOOD AND DRUGS.

During the month of May, 1916, samples were collected in 55 cities and towns.

Of the 1,018 samples collected, 790 were milk, 132 were foods other than milk, and 96 were drugs. There were 25 samples of drugs which were below the requirements of the pharmacopœia. There were 20 samples of food found to be adulterated, consisting of 3 samples of cream containing less than 15 per cent. of fat, 1 sample of decomposed eggs, 7 samples of maple sugar containing cane sugar, 4 samples of Hamburg steak preserved with sodium sulphite and not so labeled, and 4 samples of sausages containing starch in excess of 2 per cent. There were 212 samples of milk below standard, of which 9 were skimmed milk not properly labeled, 21 contained added water and 17 contained visible dirt.

There were 21 convictions obtained for violation of the laws. The total amount of fines imposed was \$380. For violation of the milk law Charles G. Bashaw of Newburyport, Herman Braverman of Taunton, John F. Casey of Worcester, James O'Brine of Lincoln, Minnie A. Ray of Haverhill, and Edward S. Ricker of Carlisle were convicted. Mr. Braverman appealed his case. Max Mettall of Canton was convicted for selling molasses in a registered milk jar. Edward F. Coleman of Lynn, Michael Lofus of Fitchburg, Charles Maffeo of Fitchburg, Messrs. Petros & Chires of Lynn, on two counts, Louis Raini of Springfield, Patsy Romano of Fitchburg and Araga Silver of Springfield were convicted for selling adulterated maple sugar. Arthur A. Villeneuve of Dorchester was convicted for violation of the drug laws and appealed. Harry Leviton of Boston, Abram Lipsky and George W. Scott of Roxbury were convicted for violation of the food laws. Messrs. Leviton and Lipsky both appealed their cases. Oliva Beauchamp of Holyoke and Benjamin L. Roberts of Worcester were convicted for selling adulterated sausages.

There were 32 confiscations made, the total weight being 9,579½ pounds. Of these confiscations, 1 was beef, 1 veal and 1 calf liver, lung and heart. The balance was articles which had been held in cold storage, consisting of 3,150 pounds of broken-out eggs, 36 pounds of butter, 317¼ pounds of poultry, 1,079 pounds of meat, 71 pounds of game and 4,696 pounds of fish.

In accordance with the Acts of 1902, chapter 272, the following is the list of articles of adulterated food collected in original packages or from manufacturers, wholesalers or producers:—

Two samples of milk containing added water and 3 samples of milk

containing dirt, produced by Frank L. Alves of Blackstone; 5 samples of milk containing added water, produced by John Cabral of Fairhaven; 1 sample of milk containing dirt, produced by A. G. Kempton of Grafton; 4 samples of milk containing dirt, produced by Thomas Courtemanche of Mendon; 1 sample of milk containing added water, produced by Hagop Krikorian of Methuen; 1 sample of milk containing dirt, 1 sample of milk containing added water, and 1 sample of skimmed milk not properly labeled, produced by Joseph Lamouthe of Blackstone; 2 samples of milk containing added water, produced by James O'Brine of Lincoln; 3 samples of milk containing added water, produced by Mrs. Minnie A. Ray of Haverhill; 1 sample of milk containing dirt, produced by the Saunders Cotton Mill Company of Grafton; 2 samples of milk containing added water, produced by Alpha Tancrelle of Mendon; and 7 samples of milk containing dirt, produced by Howard T. Worth of Blackstone.

REPORT UPON THE WORK OF THE BACTERIOLOGICAL LABORATORY FOR THE MONTH OF MAY, 1916.

The following gives the total number of bacteriological examinations made in the laboratory of the State Department of Health during the month of May, 1916:—

	Number of Examinations.	DIAGNOSIS.		RELEASE.	
		Positive.	Negative.	Positive.	Negative.
Diphtheria, ...	1,578	96	1,235	83	164

	Number of Examinations.	Positive.	Negative.	*Atypical.
Tuberculosis, ...	314	67	247	
*Typhoid fever (Widal test), ...	102	11	90	1
Typhoid fever (culture test), ...	12	1	11	
Malaria, ...	6	—	6	
Miscellaneous, ...	111			

Total number of examinations made, 2,123.

The following gives the total number of biological products and diagnostic outfits distributed by the State Department of Health during the month of May, 1916: —

Biological Products.

Diphtheria antitoxin: —

12,000 units (special for the Boston City Hospital),	126 bottles.
6,000 units (special for the Boston City Hospital),	24 bottles.
3,000 units, ...	2,583 bottles.
1,500 units, ...	1,092 bottles.
750 units, ...	351 bottles.

Smallpox vaccine: —

Capillary tubes, ...	11,623
Bulk, ...	1,400

Typhoid vaccine: —

Ampoules, ...	5,408
Bulk, ...	800

Antimeningitis serum, ... 184 bottles.

Silver nitrate solution, ... 2,588 ampoules.

Diagnostic Outfits.

Culture tubes, ...	1,798
Culture media, ...	2,075
Sputum bottles, ...	451
Widal outfits, ...	172
Bile outfits, ...	15
Malaria outfits, ...	16

NEW LEGISLATION.

RESOLVES, CHAPTER 112.

RESOLVE PROVIDING FOR THE APPOINTMENT OF A COMMISSION TO INVESTIGATE THE EXTENT OF THE USE OF HABIT-FORMING DRUGS AND THE EFFECTIVENESS OF THE LAWS PERTAINING THERETO.

Resolved, That a commission of three members, of whom one shall be the head of a division of the state department of health, and another shall be one of the several district attorneys of the commonwealth or one of their assistants, shall be appointed by the governor to investigate the extent of the use of habit-forming drugs in this commonwealth and the effectiveness of the laws intended to regulate and to prevent the increasing use of the same. The commission shall serve without compensation, shall have a room in the state house assigned for its use, shall give such public hearings as it may deem necessary, and may employ

such assistance, clerical or otherwise, and incur such expense necessarily incidental thereto as may be approved by the governor and council. The commission shall report its findings to the next general court, not later than the tenth day of January, with any recommendations which it deems advisable. [*Approved May 20, 1916.*]

GENERAL ACTS, CHAPTER 197.

AN ACT TO PROMOTE THE BUILDING AND USE OF TUBERCULOSIS HOSPITALS IN CITIES AND TOWNS.

Be it enacted, etc., as follows:

SECTION 1. Chapter five hundred and ninety-seven of the acts of the year nineteen hundred and eleven, as amended in section one by section one of chapter six hundred and thirty-seven of the acts of the year nineteen hundred and twelve and by chapter fifty-seven of the General Acts of the year nineteen hundred and sixteen, is hereby further amended by striking out said section one and inserting in place thereof the following:—*Section 1.* Every city or town which places its patients suffering from tuberculosis in a municipal or incorporated tuberculosis hospital in this commonwealth, or in a building or ward set apart for patients suffering from tuberculosis by a municipal or incorporated hospital in this commonwealth, shall be entitled to receive from the commonwealth a subsidy of five dollars a week for each patient who is unable to pay for his support, or whose kindred bound by law to maintain him are unable to pay for the same; but a city or town shall not become entitled to this subsidy unless, upon examination authorized by the trustees of hospitals for consumptives, the sputum of such patient be found to contain bacilli of tuberculosis, nor unless the hospital building or ward be approved by said trustees, who shall not give such approval unless they have by authority of law, or by permission of the hospital, full authority to inspect the same at all times. Said trustees may at any time withdraw their approval. In the case of those hospitals having a bed capacity which, in the judgment of the said trustees, is in excess of the number of beds needed for patients exhibiting tubercle bacilli in their sputum, in the localities which these institutions serve, the subsidy above provided for shall be allowed for such patients not exhibiting tubercle bacilli in their sputum as, in the joint opinion of the superintendent of the institution and of the state district health officer of the district in which the hospital is situated, are bona fide cases of consumption and have been in the institution more than thirty days. Said trustees shall not approve claims for subsidy hereunder for more than thirty days prior to the date when notice is mailed to them that a subsidy in any given case is claimed.

SECTION 2. This act shall take effect upon its passage. [*Approved May 11, 1916.*]

GENERAL ACTS, CHAPTER 286.

AN ACT TO PROVIDE FOR THE CONSTRUCTION BY COUNTIES OF TUBERCULOSIS HOSPITALS FOR CITIES AND TOWNS HAVING LESS THAN FIFTY THOUSAND INHABITANTS.

Be it enacted, etc., as follows:

SECTION 1. The county commissioners of each county in the commonwealth, except Suffolk, Nantucket, and Dukes County, are hereby authorized and directed to provide adequate hospital care for all those persons residing in cities or towns having less than fifty thousand population, as determined by the latest United States census, within the boundaries of their respective counties and suffering from consumption, who are in need of such hospital care and for whom adequate hospital provision does not already exist. The said hospital provision shall be available for patients on or before the first day of January, nineteen hundred and eighteen; but if, in order to comply with the provisions of this section, it is necessary for any county to construct a new building at an expense exceeding ten thousand dollars, including any necessary payment for land, or to make substantial additions to or alterations in an existing building at an expense exceeding ten thousand dollars, such new construction, addition or alteration need not be completed until the first day of September, nineteen hundred and eighteen.

SECTION 2. A contract entered into before January first of the year nineteen hundred and seventeen for a term of years not less than five nor more than twenty-five, and approved by the state department of health after a petition made to the said department and a public hearing thereon, between (a) boards of county commissioners of two adjoining counties, or (b) boards of county commissioners of any county and the legally constituted authorities of any city within the same county, or (c) either county commissioners or the legally constituted authorities of cities of fifty thousand or more inhabitants and the trustees or authorities of any existing or future privately endowed tuberculosis institution, or the trustees of any fund available for the purpose of supplying hospital facilities for persons suffering from consumption, for the express purpose of supplying, within a reasonable time as provided in the conditions of approval of the state department of health, and guaranteeing adequate hospital provision for consumptives coming under the provisions of this act, shall be held to be satisfactory compliance with the provisions of this act for such counties, sections of counties, or for such cities or classes of individuals, as the case may be, as are designated in the contract; and such contracts shall, subject to the approval of the state department of health, be renewable upon such terms as shall be satisfactory to the contracting parties: *provided, however*, that if such contracts are not renewed and approved by the state department of health at least nine months before their expiration, or if the contracts are renewed and the state department of health shall refuse approval on the ground that by reason of changed circumstances the contract will be inadequate properly to protect the public health of the communities affected by it, and the contracting parties fail within six months before the time when the previous contract expires to agree to a re-

newal of the contract upon terms approved by the state department of health, the duties and obligations relative to supplying adequate hospital care for such counties, or sections of counties, cities or classes of individuals imposed upon county commissioners and city governments by this act shall be in full force and effect.

SECTION 3. "Adequate" hospital provision for consumptives within the meaning of this act shall be held to mean at least one such hospital bed for each two deaths from consumption in the county, counties, parts of a county, or cities served by such hospitals, as the case may be, as determined by computing the average number of deaths from consumption per annum for the years nineteen hundred and eleven to nineteen hundred and fifteen, inclusive, in the communities served by such hospitals, and by a similar quinquennial computation by the state department of health thereafter.

SECTION 4. Cities having more than fifty thousand inhabitants within the meaning of this act, and also cities and towns having less than fifty thousand inhabitants within the meaning of this act but already possessing and continuing to furnish adequate tuberculosis hospital provision according to section three, shall be exempt from the provisions of this act and shall not be required to pay any part of the county tax which is assessed in order to comply with the provisions of this act.

SECTION 5. County commissioners are authorized and directed, subject to the approval of the state department of health, to erect one or more hospitals within their respective counties to carry out the provisions of this act, or they may in the case of counties having a total population of less than fifty thousand inhabitants, as determined by the latest United States census, arrange to obtain tuberculosis hospital care for those consumptives coming within their jurisdiction by entering into a contract with a tuberculosis institution in a neighboring county in accordance with the provisions of section two. No new tuberculosis hospital shall be erected under the provisions of this act having a total capacity of less than fifty beds.

SECTION 6. County commissioners are authorized and directed in carrying out the provisions of this act, to raise and expend such sums of money for acquiring land and constructing and equipping hospitals, and for the purchase, alteration and enlargement of existing buildings, as may be necessary to carry out the provisions of this act. They are authorized to borrow on the credit of the county the said sums of money, and to issue the notes of the county therefor, with interest at a rate not exceeding five per cent per annum, payable semi-annually. The notes shall be signed by the county treasurer and countersigned by a majority of the county commissioners. The county may sell the said securities at public or private sale on such terms or conditions as may be deemed proper, but the proceeds shall be used only for the purposes specified by this act. Said notes may be renewed from time to time until such time as all the cities and towns liable have paid to the county treasurer the amounts assessed. All reimbursement from cities and towns shall be applied to the payment of temporary debt incurred under the provisions of this act by said counties.

SECTION 7. When the hospital is completed and equipped, the county com-

missioners shall determine the cost of the same, together with the interest paid or due on the bonds or notes issued therefor, and shall apportion the same to the several cities and towns that are liable under this act, in accordance with their valuation used in assessing the county taxes. And each of the cities and towns liable under this act to contribute to the construction and equipment of said hospital, shall pay its proportion of said expenses into the treasury of the county in such manner and in such instalments as the county commissioners shall, by a special order direct; and if any city or town shall neglect or refuse to pay its proportion as required by said order, the county commissioners shall, after notice to the city or town, and unless sufficient cause is shown to the contrary, issue a warrant against the city or town for the sum which it was ordered to pay, with interest, and the costs of the notice and warrant; and the same shall be collected and paid into the county treasury, to be applied in payment of the expenses aforesaid.

SECTION 8. Any city or town upon which any part of the expense of construction of said hospital shall have been assessed or apportioned by the county commissioners may incur indebtedness, and may issue bonds or other securities for the payment of their respective assessments, outside of their statutory debt limit. Such bonds or other securities shall be issued upon the serial plan, in accordance with the provisions of chapter seven hundred and nineteen of the acts of the year nineteen hundred and thirteen, so far as they apply, and shall be payable within twenty years after their respective dates of issue.

SECTION 9. The county shall provide for the care, maintenance and repair of said hospital. In January of each year the county commissioners shall apportion the cost of the same for the previous year to the cities and towns liable under this act, in the same proportion in which the cost of the construction was assessed, and shall issue their warrant against the cities and towns for the amount or percentage for which the cities and towns are severally assessed to pay for the maintenance, care and repair of said hospital. The county may, thirty days after a demand in writing for payment, recover in an action of contract against any city or town liable to pay any part of the cost of construction, maintenance or repair of said hospital, the amount for which the same may be liable.

SECTION 10. For the purpose of carrying out the provisions of this act county commissioners may purchase or lease, or take by right of eminent domain, such land, not exceeding five hundred acres in extent, as they may deem necessary or convenient. Damages for the taking of land or for the doing of any other act under authority hereof may be recovered in the manner provided by law for the recovery of damages in the case of land taken for highways. If land is taken by right of eminent domain, the county commissioners shall file in the registry of deeds for the district where the land is situated, a plan and description of the land taken sufficiently accurate for identification, whereupon title to the land shall vest in the county, to be held for said hospital district.

SECTION 11. The county commissioners shall be trustees of the hospitals erected under the provisions of this act, shall make suitable regulations for their government, and shall appoint superintendents and such other officers and employees as may be necessary for the proper conduct of such hospitals. The

superintendents and other physicians employed shall be appointed subject to the approval of the trustees of hospitals for consumptives.

SECTION 12. Patients shall be admitted to the said hospitals through application by the boards or departments of health of the cities and towns served by the hospitals. The charges for the support of patients shall be based on the actual cost of their care and treatment, exclusive of all interest or other expenses pertaining to the construction, equipment or permanent upkeep of the institution, which expenses shall be a charge against the county, as provided in section six. Patients may be admitted who pay for their care in whole or in part, on terms fixed by the trustees, or for whom such payment in whole or in part is made by others; but all patients shall be admitted in the order of their application, and no preference shall be given to paying patients over others. The charge for the support of the patient in any hospital established hereunder shall be paid by the city or town by which he is sent to the hospital, so far as the same or any part thereof is not paid by the patient, or in his behalf, as aforesaid. If the patient has no known settlement in the commonwealth the charge shall be paid by the commonwealth upon the approval of the bills by the state board of charity in the same manner as provided by chapter three hundred and eighty of the acts of the year nineteen hundred and nine. Such charges may afterward be recovered by the city or town or by the treasurer of the commonwealth, as the case may be, from the patient if he is able to pay, or from any person or kindred bound by law to maintain him, in the manner now provided by section ten of chapter four hundred and seventy-four of the acts of the year nineteen hundred and seven, as amended by chapter seventeen of the acts of the year nineteen hundred and twelve, for the recovery of unpaid charges for the support of inmates of the state sanatoria. All cities and towns paying for the support of patients an amount exceeding fifty per cent of the actual cost of maintaining them in hospitals erected, or utilized by contract, under the provisions of this act shall be entitled to any payment or repayments allowed under the laws of the commonwealth in the same manner and subject to the same conditions which now apply to the support of tuberculosis patients in a city or town tuberculosis hospital.

SECTION 13. The situation, plans for construction and actual construction of any new hospitals or additions to any existing hospitals, provided for the purpose of carrying out the provisions of this act, shall be subject to the approval of the state department of health. The state department of health, for each hospital maintained by counties under the provisions of this act, and for each hospital caring under contract with county commissioners for tuberculosis patients, shall annually in January appoint from the inhabitants of the cities or towns served by the aforesaid hospitals an unpaid board of five official visitors, of whom two shall be women, whose duty it shall be to visit the said hospitals from time to time and to make such suggestions and recommendations relative to the improvement of their management, and to the efficient and humane care of patients, as they may deem proper, jointly to the county commissioners and the state district health officer within whose jurisdiction the institution is situated.

SECTION 14. The mayors of the cities of Chelsea and Revere and the chair-

man of the board of selectmen of the town of Winthrop shall have and exercise, for the purposes of this act, the powers given to county commissioners, and they are hereby designated as a board of trustees for the tuberculosis hospital district comprising the cities of Chelsea and Revere and the town of Winthrop, and they are hereby authorized and directed to provide adequate hospital care for persons residing in the cities of Chelsea and Revere and the town of Winthrop suffering from consumption who are in need of such hospital care in the same manner as county commissioners are directed in section one.

SECTION 15. Nothing in this act shall be construed to repeal chapter five hundred and twenty-seven of the acts of the year nineteen hundred and thirteen, or chapter one hundred and fifty-three of the General Acts of the year nineteen hundred and fifteen, or section thirty-five of chapter seventy-five of the Revised Laws and the amendments thereof, in so far as the said acts pertain to cities having a population of fifty thousand or more inhabitants within the meaning of this act, or in so far as such acts pertain to the care of diseases other than consumption or to the inspection of institutions by the state district health officers; but so much of the said acts as requires cities and towns having less than fifty thousand population to make hospital provision for tuberculosis patients is hereby repealed. *[Approved June 1, 1916.]*

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation taken by State as of April 15, 1915.	Total Deaths from All Causes.	63A		19A		9		19B		6	
				Ante- rior Polio- myeli- tis.		Chick- en Pox.		Diph- theria.		Ger- man Meas- les.		Meas- les.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	Massachusetts, ...	3,692,310	3,486	3	-	506	1	673	34	68	-	4336	42
2	CITIES OVER 500,000.												
3	Boston, ¹	745,439	-	-	-	207	-	280	-	-	-	886	-
4	CITIES, 150,000-500,000.												
5	Worcester, ...	162,697	260	-	-	3	-	24	1	-	-	195	7
6	CITIES, 100,000-150,000.	554,130	698	-	-	65	-	76	11	24	-	629	13
7	Fall River, ...	124,791	145	-	-	8	-	20	4	-	-	35	3
8	New Bedford, ...	109,568	153	-	-	5	-	8	1	-	-	38	3
9	Cambridge, ...	108,822	114	-	-	14	-	25	-	3	-	50	3
10	Lowell, ...	107,978	153	-	-	13	-	8	2	14	-	51	-
11	Springfield, ...	102,971	133	-	-	25	-	15	4	7	-	455	4
12	CITIES, 50,000-100,000.	396,020	481	-	-	48	-	102	6	1	-	1074	11
13	Lynn, ...	95,803	117	-	-	1	-	36	2	1	-	114	3
14	Lawrence, ...	90,259	100	-	-	15	-	34	3	-	-	74	4
15	Somerville, ...	86,834	96	-	-	19	-	14	1	-	-	6	-
16	Brockton, ...	62,238	92	-	-	11	-	13	-	-	-	574	4
17	Holyoke, ...	60,816	76	-	-	2	-	5	-	-	-	6	-
18	CITIES AND TOWNS, 25,000-50,000.	565,381	596	2	-	71	-	94	4	21	-	293	-
19	Haverhill, ...	49,450	57	-	-	2	-	12	-	2	-	28	-
20	Malden, ...	48,907	52	1	-	10	-	29	1	13	-	8	-
21	Chelsea, ...	43,426	50	-	-	8	-	6	-	-	-	18	-
22	Newton, ...	43,113	27	-	-	2	-	6	-	-	-	62	-
23	Quincy, ...	40,674	42	-	-	-	-	1	-	3	-	9	-
24	Fitchburg, ...	39,656	38	1	-	3	-	7	-	-	-	104	-
25	Pittsfield, ...	39,607	41	-	-	2	-	6	1	-	-	4	-
26	Everett, ...	37,718	39	-	-	1	-	13	1	-	-	1	-
27	Salem, ...	37,200	56	-	-	2	-	-	-	-	-	5	-
28	Taunton, ...	36,161	68	-	-	1	-	3	-	-	-	2	-
29	Brookline, ...	33,490	28	-	-	12	-	1	-	-	-	17	-
30	Medford, ...	30,509	28	-	-	26	-	1	-	-	-	6	-
31	Waltham, ...	30,154	26	-	-	1	-	3	1	-	-	-	-
32	Chicopee, ...	30,138	33	-	-	1	-	3	-	3	-	29	-
33	Revere, ...	25,178	11	-	-	-	-	3	-	-	-	-	-
34	CITIES AND TOWNS, 10,000-25,000.	513,600	579	1	-	44	-	58	7	3	-	292	7
35	Gloucester, ...	24,478	47	-	-	-	-	-	-	-	-	12	1
36	Beverly, ...	22,959	24	-	-	1	-	2	-	-	-	1	1
37	North Adams, ...	22,035	19	-	-	-	-	2	-	-	-	-	-
38	Northampton, ...	21,654	40	-	-	1	-	-	-	1	-	8	-
39	Peabody, ...	18,625	23	-	-	-	-	2	1	-	-	37	-
40	Attleboro, ...	18,450	19	-	-	5	-	3	-	-	-	44	-
41	Westfield, ...	18,411	15	-	-	13	-	-	-	-	-	-	-
42	Leominster, ...	17,646	15	-	-	5	-	3	2	-	-	1	-
43	Melrose, ...	16,850	18	-	-	7	-	-	-	-	-	1	-
44	Watertown, ...	16,515	18	-	-	-	-	7	1	-	-	3	1
45	Woburn, ...	16,410	19	-	-	-	-	-	-	-	-	3	2
46	Gardner, ...	16,376	10	-	-	-	-	3	-	-	-	-	-
47	Framingham, ...	15,860	22	-	-	3	-	9	-	-	-	52	-
48	Newburyport, ...	15,311	15	-	-	-	-	3	-	-	-	1	-
49	Marlborough, ...	15,250	16	-	-	-	-	2	-	-	-	-	-
50	Arlington, ...	14,889	9	-	-	4	-	-	-	1	-	1	-
51	Southbridge, ...	14,217	15	-	-	-	-	3	2	-	-	6	-

¹ Boston death returns for April not received at office of Secretary of the Commonwealth June 14, 1916.

TO THE PUBLIC HEALTH, APRIL, 1916.

19C		38A		7		28		29-35		1		8		61A		100		5		75A		Line No.
Mumps.		Ophthalma Neonatorum.		Scarlet Fever.		Pulmonary Tuberculosis.		Tuberculosis, Other Forms.		Typhoid Fever.		Whooping Cough.		Cerebro-spinal Meningitis.		Septic Sore Throat.		Small-pox.		Tra-choma.		
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
299	-	168	-	809	10	676	278	66	57	64	8	717	32	13	8	11	7	6	-	8	-	1
117	-	77	-	285	-	264	-	29	-	16	-	172	-	8	-	1	-	-	-	4	-	2
10	-	8	-	9	1	26	19	6	6	2	-	-	-	1	1	-	1	-	-	3	-	4
79	-	32	-	91	1	132	65	3	11	6	4	54	4	2	1	2	-	-	-	-	-	5
-	-	10	-	11	1	27	15	-	-	2	-	11	-	-	-	1	-	-	-	-	-	6
12	-	7	-	14	-	37	17	1	5	1	-	3	-	-	-	-	-	-	-	-	-	7
28	-	2	-	20	-	33	12	-	1	3	1	28	1	-	-	1	-	-	-	-	-	8
-	-	6	-	8	-	15	14	1	4	-	3	1	2	1	1	-	-	-	-	-	-	9
39	-	7	-	33	-	20	7	1	1	-	-	11	1	1	1	-	-	-	-	-	-	10
22	-	14	-	75	3	67	50	8	9	12	1	60	5	-	1	4	1	-	-	-	-	11
2	-	3	-	27	2	18	12	2	2	3	-	11	1	-	-	-	-	-	-	-	-	12
8	-	6	-	12	1	19	15	3	4	8	-	8	-	-	-	1	-	-	-	-	-	13
12	-	2	-	15	-	14	14	3	2	-	-	9	-	-	-	2	-	-	-	-	-	14
-	-	1	-	6	-	8	4	-	-	-	-	31	2	-	1	1	1	-	-	-	-	15
-	-	2	-	15	-	8	5	-	1	1	1	1	2	-	-	-	-	-	-	-	-	16
21	-	15	-	138	4	80	42	14	16	6	1	126	4	1	1	1	1	6	-	-	-	17
-	-	1	-	7	-	8	4	2	2	-	-	13	1	1	1	1	-	-	-	-	-	18
-	-	4	-	22	1	6	1	2	1	-	-	6	-	-	-	-	-	-	-	-	-	19
6	-	3	-	7	-	8	5	2	1	-	-	11	1	-	-	-	-	-	-	-	-	20
2	-	-	-	6	-	6	4	5	-	1	-	17	-	-	-	-	-	-	-	-	-	21
2	-	-	-	33	1	1	2	1	1	-	-	3	-	-	-	-	-	-	-	-	-	22
-	-	1	-	9	-	5	2	2	2	-	-	22	-	-	-	-	-	-	-	-	-	23
2	-	3	-	5	1	3	2	-	-	1	-	7	-	-	-	-	-	6	-	-	-	24
1	-	1	-	6	-	11	4	-	-	-	-	13	1	-	-	-	-	-	-	-	-	25
-	-	-	-	5	-	6	4	2	3	-	1	14	-	-	-	1	-	-	-	-	-	26
-	-	-	-	2	-	3	5	-	1	-	-	-	-	-	-	-	-	-	-	-	-	27
-	-	-	-	10	-	5	2	-	1	1	-	11	-	-	-	-	-	-	-	-	-	28
8	-	1	-	8	-	1	2	-	1	-	-	3	-	-	-	-	-	-	-	-	-	29
-	-	1	-	11	-	1	4	-	2	1	-	6	-	-	-	-	-	-	-	-	-	30
-	-	-	-	6	1	16	1	1	2	-	1	-	1	-	-	-	-	-	-	-	-	31
-	-	-	-	1	-	1	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	32
11	-	11	-	98	-	61	36	2	9	10	1	86	9	-	1	3	3	-	-	-	-	33
5	-	1	-	-	-	6	3	1	1	-	-	9	6	-	-	-	-	-	-	-	-	34
1	-	-	-	2	-	4	1	-	-	1	-	-	-	-	-	-	1	-	-	-	-	35
-	-	-	-	9	-	2	1	-	1	3	1	-	-	-	-	-	-	-	-	-	-	36
-	-	-	-	3	-	4	1	-	1	-	-	2	-	-	-	-	1	-	-	-	-	37
-	-	-	-	2	-	5	1	-	1	-	-	4	-	-	-	-	-	-	-	-	-	38
1	-	1	-	2	-	2	2	-	1	-	-	2	-	-	-	-	-	-	-	-	-	39
2	-	1	-	10	-	2	4	-	-	-	-	3	-	-	-	3	-	-	-	-	-	40
-	-	1	-	1	-	1	2	-	-	2	-	5	-	-	-	-	-	-	-	-	-	41
-	-	1	-	1	-	-	-	-	-	-	-	4	2	-	-	-	1	-	-	-	-	42
-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43
-	-	-	-	1	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	44
2	-	-	-	2	-	3	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	45
-	-	-	-	-	-	1	-	-	-	-	-	4	-	-	1	-	-	-	-	-	-	46
-	-	-	-	7	-	2	2	-	1	-	-	3	-	-	-	-	-	-	-	-	-	47
-	-	-	-	5	-	4	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	48
-	-	-	-	1	-	1	-	-	1	-	-	6	-	-	-	-	-	-	-	-	-	49
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation taken by State as of April 15, 1915.	Total Deaths from All Causes.	63A		19A		9		19B		6	
				Ante- rior Poli- omyeli- tis.		Chick- en Pox.		Diph- theria.		Ger- man Mea- sles.		Mea- sles.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	Methuen, ...	14,007	21	1	-	1	-	3	-	-	-	44	1
2	Weymouth, ...	13,969	19	-	-	-	-	-	-	-	-	-	-
3	Milford, ...	13,684	19	-	-	-	-	-	1	-	-	1	-
4	Adams, ...	13,218	10	-	-	-	-	-	-	-	-	10	-
5	Clinton, ...	13,192	15	-	-	-	-	-	-	-	-	9	-
6	Plymouth, ...	12,926	14	-	-	-	-	1	-	-	-	7	-
7	Wakefield, ...	12,781	13	-	-	-	-	3	-	-	-	1	-
8	Winthrop, ...	12,758	11	-	-	-	-	2	-	-	-	1	-
9	Greenfield, ...	12,618	10	-	-	-	-	-	-	-	-	3	-
10	Webster, ...	12,565	12	-	-	-	-	1	-	-	-	1	-
11	West Springfield, ...	11,339	8	-	-	-	-	3	-	-	-	28	1
12	Danvers, ...	11,177	32	-	-	-	-	-	-	-	-	1	-
13	Natick, ...	11,119	7	-	-	-	-	5	-	-	-	-	-
14	Dedham, ...	11,043	13	-	-	2	-	-	-	-	-	2	-
15	Norwood, ...	10,977	13	-	-	1	-	-	-	1	-	4	-
16	Saugus, ...	10,226	9	-	-	1	-	-	-	-	-	2	-
17	Winchester, ...	10,005	9	-	-	-	-	1	-	-	-	8	-
18	Towns, 5,000-10,000.	562,941	488	-	-	47	-	15	4	11	-	603	1
19	Towns, 2,500-5,000.	176,276	182	-	-	8	-	11	1	5	-	115	3
20	Towns under 2,500.	216,826	262	-	-	15	-	13	-	3	-	249	-

In addition to the above there occurred 3 cases of anthrax, 1 in Clinton, 1 in Winchester and 1 in Woburn; 4 cases of dog bite, 1 in Attleboro and 3 in Medford; 4 cases of malaria, 2 in Boston, 1 in Newton and 1 in Springfield, and 1 death in Framingham; 1 case of leprosy in Boston; 3 cases of pellagra, 1 in Cambridge, 1 in Northampton and 1 in Worcester, and 2 deaths, 1 in Northampton and 1 in Winchester; 2 cases of tetanus, 1 in Boston and 1 in Lawrence; 2 cases of trichinosis, 1 in Boston and 1 in Springfield; and 4 deaths from dysentery, 1 in Dennis, 1 in Fall River, 1 in Sutton and 1 in Taunton.

TO THE PUBLIC HEALTH — *Concluded.*

19C		38A		7		28		29-35		1		8		61A		100		5		75A		Line No.
Mumps.		Ophthalmia Neonatorum.		Scarlet Fever.		Pulmonary Tuberculosis.		Tuberculosis, Other Forms.		Typhoid Fever.		Whooping Cough.		Cerebro-spinal Meningitis.		Septic Sore Throat.		Small-pox.		Trachoma.		
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
-	-	-	-	5	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
-	-	-	-	1	-	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
-	-	-	-	2	-	2	3	-	-	-	-	2	-	-	-	-	-	-	-	-	-	3
-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
-	-	-	-	2	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
-	-	-	-	4	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	6
-	-	1	-	3	-	2	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	7
-	-	1	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
-	-	1	-	2	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	9
-	-	1	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
-	-	1	-	-	-	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
-	-	-	-	5	-	2	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	12
-	-	-	-	7	-	2	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	13
-	-	-	-	-	-	1	1	1	-	1	-	5	-	-	-	-	-	-	-	-	-	14
-	-	-	-	13	-	2	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	15
-	-	1	-	2	-	2	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	16
-	-	-	-	2	-	3	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	17
31	-	6	-	51	-	26	27	3	4	5	-	147	6	1	2	-	-	-	-	1	-	18
4	-	4	-	30	-	9	10	-	-	5	1	26	3	-	-	-	-	-	-	-	-	19
4	-	1	-	32	1	11	29	1	2	2	-	46	1	-	1	-	1	-	-	-	-	20

MASSACHUSETTS STATE DEPARTMENT OF HEALTH.

Commissioner, ALLAN J. McLAUGHLIN, M.D.

Division of Administration,	. . .	
Division of Sanitary Engineering,	. . .	Director and Chief Engineer, X. H. GOODNOUGH, C.E.
Division of Communicable Diseases,	. . .	Director, E. R. KELLEY, M.D.
Division of Water and Sewage Laboratories,		Director and Chemist, H. W. CLARK.
Division of Biologic Laboratories,	. . .	Director and Pathologist, MILTON J. ROSENAU, M.D.
Division of Food and Drugs,	. . .	Director and Analyst, HERMANN C. LYTHGOE.
Division of Hygiene,	. . .	Director, SELSKAR M. GUNN.

Public Health Council.

ALLAN J. McLAUGHLIN, M.D., *Chairman.*

WM. T. SEDGWICK, Ph.D.	JOSEPH E. LAMOUREUX, M.D.
GEORGE C. WHIPPLE, S.B.	WM. J. GALLIVAN, M.D.
DAVID L. EDSALL, M.D.	JOHN T. WHEELWRIGHT.

State District Health Officers.

The Southeastern District,	. . .	ADAM S. MacKNIGHT, M.D., Fall River.
The Eastern District,	. . .	MERRILL E. CHAMPION, M.D., Wollaston.
The Northeastern District,	. . .	LYMAN A. JONES, M.D., Swampscott.
The North Midland District,	. . .	CHARLES E. SIMPSON, M.D., Lowell.
The South Midland District,	. . .	WILLIAM W. WALCOTT, M.D., Natick.
The Wachusett District,	. . .	LEWIS FISH, M.D., Fitchburg.
The Connecticut Valley District,	. . .	JOHN S. HITCHCOCK, M.D., Northampton.
The Berkshire District,	. . .	STANLEY H. OSBORN, M.D., North Adams.

PUBLIC HEALTH BULLETIN

ISSUED MONTHLY

BY THE

STATE DEPARTMENT OF HEALTH
OF MASSACHUSETTS



JULY, 1916

Vol. 3, No. 7

ALLAN J. McLAUGHLIN, M.D., *Commissioner*

The Common Health of the Commonwealth

Entered as Second-class Matter Oct. 26, 1914, at the Post Office at Boston, Mass.,
under the Act of Aug. 24, 1912

CONTENTS.

	PAGE
Résumé of Communicable Diseases for June, 1916, ...	131
Minimum Requirements for Tuberculosis Dispensaries as defined by the State Department of Health, ...	134
Opinions of Attorney-General relative to An Act to provide for the Construction by Counties of Tuberculosis Hospitals for Cities and Towns having less than 50,000 Inhabitants: —	
(1) As to whether the County Commissioners are made Trustees of Any Institution which makes Hospital Provision for Consumptives under Section 2, ...	136
(2) As to the Proper Construction to be given to the Words "Hospital established hereunder" as they appear in Section 12, ...	137
Food and Drugs, ...	139
Report of the Bacteriological Laboratory, ...	140
Cases and Deaths from Diseases Dangerous to the Public Health for Cities and Towns, May, 1916, ...	142

RÉSUMÉ OF COMMUNICABLE DISEASES FOR JUNE, 1916.

The striking facts of the communicable disease situation for June are the continued high mortality for measles and the low incidence of typhoid fever.

Prevalence. — The communicable diseases, prevalent in about the same amount as during June of last year, have continued to be above the five-year average for June. As was noted last month, this increase above the average for the five-year period is due to the unusual prevalence of measles.

Measles continues to be the most important factor in the communicable disease reports. There is very little variation between the number of cases reported last year during June and this year. The center of greatest prevalence of measles has shifted during the last month. There have been fewer cases reported from Springfield and Worcester, while there has been an increase in the cases from Lowell and Fitchburg. During June the following cities and towns have exceeded their endemic index (endemic index signifies the average for five years of reported cases exclusive of epidemics. This index is applied to each city and town for each month for every communicable disease): —

[The numbers in parentheses after the names of each city and town indicate the endemic index for that city or town. The numbers without parentheses indicate the cases reported during the current month.]

Attleboro, ... (1) 27	Newton, ... (67) 101
Mansfield, ... (1) 73	Fitchburg, ... (11) 129
Middleborough, ... (1) 44	Hardwick, ... (0) 30
Dartmouth, ... (1) 18	Gardner, ... (2) 107
Bridgewater, ... (2) 111	Shirley, ... (0) 92
Brockton, ... (33) 107	Chicopee, ... (6) 47
Rockland, ... (0) 71	East Longmeadow, ... (0) 24
Lowell, ... (83) 345	Holyoke, ... (15) 117
Belmont, ... (2) 26	Palmer, ... (1) 102
Grafton, ... (0) 24	Springfield, ... (37) 154
Warren, ... (0) 35	Williamstown, ... (2) 43
Worcester, ... (58) 242	

Scarlet Fever shows a marked decrease, both in comparison with last month and with June, 1915. It is somewhat lower than the five-year average for the month of June. In Peabody there were more than the average number of cases reported, and investigation by the District Health Officer shows that they were due "missed cases." The local board of health made a house-to-house inspection and has the situation under close observation. The following cities and towns have exceeded their scarlet fever endemic index for the month of June: —

Norwood, ...	(2)	7	North Brookfield, ...	(0)	4
Peabody, ...	(2)	18	Holyoke, ...	(8)	24
Mendon, ...	(0)	7			

Whooping Cough has shown a slight decrease in amount as compared with June of last year. This infection was distributed over the eastern part of the State, with practically no reported case coming from districts 7 and 8. The following cities and towns have exceeded whooping cough endemic index: —

Barnstable, ...	(1)	8	Lexington, ...	(1)	18
Stoughton, ...	(0)	9	Winchester, ...	(1)	17
Brockton, ...	(9)	85	Clinton, ...	(0)	15
Braintree, ...	(3)	15	Fall River, ...	(7)	16
Cambridge, ...	(5)	29			

Diphtheria. — There were about the same number of cases reported during June, 1916, as there were during the same month, 1915. This is considerably above the average for the five-year period. It is also a slight increase over last month. The reported cases are scattered all over the State. The only foci of infection of importance are Salem, Lynn, Haverhill and Oxford. The following cities and towns have exceeded their diphtheria endemic index for the month of June: —

Somerset, ...	(0)	6	Haverhill, ...	(5)	19
Quincy, ...	(7)	16	Lawrence, ...	(4)	14
Wrentham, ...	(0)	7	Oxford, ...	(0)	13
Salem, ...	(4)	21	Fitchburg, ...	(4)	12
Lynn, ...	(12)	21			

Tuberculosis. — The number of cases reported to this Department during June showed a decrease in number compared with the same month last year and with the five-year average for June. It would seem that, with the increased machinery that we have for the de-

tection of this disease, we should be getting an increased number of reports.

Typhoid Fever. — The low incidence of typhoid fever, noted in last month's report, continues. The number of cases reported during June is markedly lower than the same month last year and the average for the five-year period. Fall River is the only city or town that has reported above its average of this disease. Even here the increase is only a slight one.

Mortality. — There were 402 deaths reported to this Department during June. Of this number, 246 were caused by pulmonary tuberculosis and 44 by other forms of tuberculosis. The most important other cause of death was measles, which claimed 42 persons. Diphtheria was responsible for 26 deaths, while whooping cough counted for 11. There were 4 deaths from pellagra, 6 from cerebro-spinal meningitis, 2 from tetanus and 1 from anthrax. The 5 deaths from typhoid fever, with 69 reported cases, gives a comparatively low rate.

Rare Diseases. — Trachoma was reported from Boston (3), Fitchburg (1) and Woburn (1).

Cerebro-spinal meningitis was reported from the following places: Boston (8), Worcester (1), Fall River (1) and Cambridge (1).

Malaria was reported from Wellesley (2), Boston (3), Worcester (1), Springfield (1) and Newton (4).

Pellagra was reported from Peabody (1), Danvers (3), Boston (1) and Worcester (1).

Septic sore throat was reported from Boston (3) and Fall River (1).

Dog-bite reported to this Department (in those marked "+" the laboratory examination showed the brain of the dog to be positive for rabies and they are being given the Pasteur treatment), + Attleboro (1), Montague (1), Hudson (1), Lowell (1), Lawrence (3), North Attleborough.

Actinomycosis was reported from Winchendon (1).

Smallpox was reported from Fitchburg (1).

Bacillary dysentery was reported from Natick (1).

Epidemics. — The septic sore throat epidemic in Watertown subsided promptly with the exclusion of the infected cow from the milk supply.

During the course of the month there have been 5 additional cases of anthrax reported to the Department and distributed as follows: Woburn (3), Winchester (1), Norwood (1). All of these individuals were handlers of hides; each one had handled dried China hides at the time of infection.

MINIMUM REQUIREMENTS FOR TUBERCULOSIS DISPENSARIES AS DEFINED BY THE STATE DEPARTMENT OF HEALTH.

At a meeting of the Public Health Council on Tuesday, July 11, 1916, it was voted that the "Minimum Requirements for Tuberculosis Dispensaries as defined by the State Department of Health" be amended by striking out Requirement No. 6, which reads: —

6. *Staff*. — Each dispensary shall have appointed at least one physician and one nurse, both of whom shall be in constant, regular attendance. The qualifications and training of the physicians so appointed must be approved by the State Department of Health.

And substituting therefor the following: —

6. *Staff*. — Each dispensary shall have appointed at least one physician and one nurse, or otherwise qualified tuberculosis worker, both of whom shall be in constant, regular attendance. The qualifications of physicians, nurses and tuberculosis workers so appointed must be approved by the State Department of Health.

To read as follows: —

MINIMUM REQUIREMENTS FOR TUBERCULOSIS DISPENSARIES AS DEFINED BY THE STATE DEPARTMENT OF HEALTH.¹

1. *Control and Maintenance*. — The tuberculosis dispensary shall be under the direct control of and financed through the following (in order of preference): —

- (a) The local board of health.
- (b) The local tuberculosis hospital.
- (c) The local general hospital's out-patient department.
- (d) The local anti-tuberculosis association.

2. *Supervision*. — The State Department of Health shall have supervision over all tuberculosis dispensaries, through its District Health Officers, as provided by chapter 647 of the Acts of 1914, as follows: "the state inspectors of health [district health officers] shall annually make such examination of . . . dispensaries, both public and private, caring for diseases dangerous to the public health, as in the opinion of the state board [department] of health may be necessary, and report as to the conditions and needs of such . . . dispensaries, to those responsible for the management of the said institutions."

3. *Rooms*. — The dispensary shall have at least two outside rooms: —

¹ Meeting of Public Health Council, March 9, 1915.

(a) Anteroom or waiting room. (This may be used in common with other dispensary departments.)

(b) Examining room. (This room must be reasonably quiet.)

The rooms of the dispensary shall be well lighted during the day without the aid of artificial light, shall be heated comfortably in cold weather, and shall be kept in a clean and sanitary condition at all times.

4. *Equipment*. — Each dispensary shall be furnished with: —

(a) A pair of accurate scales.

(b) A desk or filing cabinet for records.

(c) Record blanks.

(d) Examining stools and couch or table.

(e) Clinical thermometers.

(f) Running water and adequate toilet facilities.

(g) Facilities for receiving and transmitting to a laboratory sputum specimens and a supply of sputum containers for distribution.

(h) Accessories such as: paper napkins, sputum cups, etc.; leaflets of direction and advice; diet lists, etc.

All equipment shall be kept in a clean and sanitary condition at all times.

5. *Service*. — All tuberculosis dispensaries shall be open for at least one hour on one day and on one evening per week. Days and hours shall be determined by the local authorities as seems best to fit local needs.

6. *Staff*. — Each dispensary shall have appointed at least one physician and one nurse, or otherwise qualified tuberculosis worker, both of whom shall be in constant, regular attendance. The qualifications of physicians, nurses and tuberculosis workers so appointed must be approved by the State Department of Health.

7. *Location*. — The dispensary shall be reasonably accessible for the citizens who most need the services of a dispensary.

OPINIONS OF THE ATTORNEY-GENERAL OF
THE COMMONWEALTH OF MASSACHUSETTS
IN ANSWER TO REQUESTS OF THE STATE
DEPARTMENT OF HEALTH FOR DECISIONS
RELATIVE TO CERTAIN SECTIONS OF CHAPTER
286, AN ACT TO PROVIDE FOR THE
CONSTRUCTION BY COUNTIES OF TUBER-
CULOSIS HOSPITALS FOR CITIES AND
TOWNS HAVING LESS THAN FIFTY THOU-
SAND INHABITANTS.

- (1) AS TO WHETHER THE COUNTY COMMISSIONERS ARE MADE TRUSTEES
OF ANY INSTITUTION WHICH MAKES HOSPITAL PROVISION FOR
CONSUMPTIVES UNDER SECTION 2.

THE COMMONWEALTH OF MASSACHUSETTS,
DEPARTMENT OF THE ATTORNEY-GENERAL, BOSTON, June 29, 1916.

ALLAN J. McLAUGHLIN, M.D., *Commissioner of Health*.

DEAR SIR: — In the letter of Eugene R. Kelley, M.D., Director of Division of Communicable Diseases, written by direction of the Commissioner of Health, he asks for a construction of St. 1916, c. 286, and more particularly as to whether the county commissioners are made trustees of any institution which makes hospital provision for consumptives under section 2 of that act.

The statute is entitled "An act to provide for the construction by counties of tuberculosis hospitals for cities and towns having less than fifty thousand inhabitants." Provision is herein made for the erection of consumptive hospitals in certain counties and equipment of the same. By section 11 the county commissioners are made trustees of the hospitals thus erected, and they are directed to make regulations and to appoint superintendents and other officers.

An option is given by section 2 to provide hospital facilities without the erection of such hospitals. Section 2 is, in part, as follows: —

A contract entered into . . . between (a) boards of county commissioners of two adjoining counties, or (b) boards of county commissioners of any county and the legally constituted authorities of any city within the same county, or (c) either county commissioners or the legally constituted authorities of cities of fifty thousand or more inhabitants and the trustees or authorities of any existing or future privately endowed tuberculosis institution, or the trustees of any fund available for the purpose of supplying hospital facilities for persons suffering from consumption, for the express purpose of supplying, within a reasonable time as provided in the conditions of approval of the state department of health, and guaranteeing adequate hospital provision for consumptives coming under the provisions of this act, shall be held to be satisfactory compliance with the provisions of this act for such counties, sections of counties, or

for such cities or classes of individuals, as the case may be, as are designated in the contract; and such contracts shall, subject to the approval of the state department of health, be renewable upon such terms as shall be satisfactory to the contracting parties: *provided, however*, that if such contracts are not renewed and approved by the state department of health at least nine months before their expiration, or if the contracts are renewed and the state department of health shall refuse approval on the ground that by reason of changed circumstances the contract will be inadequate properly to protect the public health of the communities affected by it, and the contracting parties fail within six months before the time when the previous contract expires to agree to a renewal of the contract upon terms approved by the state department of health, the duties and obligations relative to supplying adequate hospital care for such counties, or sections of counties, cities or classes of individuals imposed upon county commissioners and city governments by this act shall be in full force and effect.

In brief this section provides that if arrangements can be made as outlined in (a), (b) and (c) for supplying such hospital facilities as may be approved by the State Department of Health, then the same "shall be held to be satisfactory compliance with the provisions of this act," and the requirement for the erection of hospitals, their equipment and operation for that part of the county included in the provisions of the contract is thereby suspended. But should these arrangements be discontinued, or the State Department of Health refuse to approve the renewal of the contracts as therein authorized, then by the provisions of this section "The duties and obligations . . . imposed . . . by this act shall be in full force and effect."

It is my opinion, therefore, that in the instance stated in your letter county commissioners are not required to be, and do not by law become, trustees of the institutions referred to in section 2.

Very truly yours,

HENRY C. ATWILL,
Attorney-General.

- (2) AS TO THE PROPER CONSTRUCTION TO BE GIVEN TO THE WORDS "HOSPITAL ESTABLISHED HEREUNDER" AS THEY APPEAR IN SECTION 12.

THE COMMONWEALTH OF MASSACHUSETTS,
DEPARTMENT OF ATTORNEY-GENERAL, BOSTON, July 6, 1916.

ALLAN J. McLAUGHLIN, M.D., *Commissioner of Health.*

DEAR SIR:— You have asked my opinion as to the proper construction to be given to the words "hospital established hereunder," as they appear in section 12 of chapter 286 of the General Acts of 1916 in the sentence reading as follows:—

The charge for the support of the patient in any hospital established hereunder shall be paid by the city or town by which he is sent to the hospital, so far as the same or any part thereof is not paid by the patient, or in his behalf, as aforesaid.

The first section of this statute authorizes and directs the county commissioners of each county, except Suffolk, Nantucket and Dukes County, "to provide adequate hospital care for all those persons residing in cities or towns having less than fifty thousand population, as determined by the latest United States census, within the boundaries of their respective counties and suffering from consumption, who are in need of such hospital care and for whom adequate hospital provision does not already exist." The statute appears to contemplate that such adequate hospital provision should be made either by the erection of a new hospital by the county commissioners, or by means of a contract with another county, with a city or with the trustees of an existing hospital, or of a fund available for the erection of such a hospital. The statute contains elaborate provisions authorizing the county commissioners to erect hospitals, and also provides the machinery for establishing a hospital by contract, with the approval of the State Department of Health. Wherever, throughout the act, reference is made to a hospital erected by the county commissioners the words "hospital erected," or their equivalent, are always used.

Section 12, in which the sentence under consideration occurs, provides for the manner in which the charges for the support of patients in any of the hospitals provided under the statute shall be paid. It is obviously intended to be complete and to cover all cases of patients admitted to any hospital provided under the act, whether erected by county commissioners or established by contract.

It is, in my opinion, plain that the words "hospital established hereunder," in the sentence under consideration, are intended to include all hospitals provided in accordance with the provisions of the statute, whether they be erected by the county commissioners or established by one of the forms of contract authorized by section 2.

The last sentence of section 12 reads as follows: —

All cities and towns paying for the support of patients an amount exceeding fifty per cent. of the actual cost of maintaining them in hospitals erected, or utilized by contract, under the provisions of this act shall be entitled to any payment or repayments allowed under the laws of the commonwealth in the same manner and subject to the same conditions which now apply to the support of tuberculosis patients in a city or town tuberculosis hospital.

This sentence expressly refers to hospitals erected or utilized by contract. This makes the meaning of the provision to which you refer doubly clear. The sentence last quoted, in its reference to hospitals utilized by contract, would be meaningless if the interpretation which I have given the words "hospitals established hereunder" were not adopted.

Very truly yours,

HENRY C. ATWILL,
Attorney-General.

FOOD AND DRUGS.

During the month of June, 1916, samples were collected in 45 cities and towns.

Of the 1,293 samples collected, 956 were milk, 222 were foods other than milk, and 115 were drugs. There were 26 samples of drugs which were below the requirements of the Pharmacopœia. There were 25 samples of food found to be adulterated, consisting of 6 samples of flavoring extracts deficient in essential oils, 1 sample of ice cream below the legal standard for fat, 1 sample of maple sugar containing cane sugar, 12 samples of Hamburg steak preserved with sulphites and not so labeled, 2 samples of sausages containing starch in excess of 2 per cent., and 1 sample of decomposed shrimp. There were 161 samples of milk below standard, of which 18 were skimmed milk not properly labeled and 9 contained added water.

There were 21 convictions obtained for violation of the laws. The total amount of fines imposed was \$430. For violation of the milk law Thomas Courtemanche of Mendon, John Cabral of Fairhaven, Fred H. Frost of Westborough, Henry D. Killam of Lawrence, Heghnor Krikorian of Methuen, and Howard T. Worth of Mendon were convicted, and Clyde H. Varney of Springfield was convicted for the sale of low standard cream. For violation of the food laws, Max HERNICKE of Holyoke, David A. Thompson of Worcester, John H. DINNERMAN of Charlestown, Morris ROSIN of Boston, Anthony RUMKUS of South Boston, John WALIAKAS of South Boston, Henry D. Killam of Lawrence, A. MALAGODI of Whitman, Marino SCAFIDI of Boston, and Leonardo FORTINI of Boston, on two counts, were convicted. Messrs. Malagodi, Scafidi and Dinnerman appealed their cases. For violation of the drug laws, Charles Lerner of Boston and Amadee L. Cornier of Marlborough, on two counts, were convicted.

There were 66 confiscations made, the total weight being 15,466 pounds. Of these confiscations, 6 were beef, 2 were pork and 3 were veal. The balance was articles which had been held in cold storage, consisting of 4,195 pounds of broken out eggs, 32 pounds of butter, 735 pounds of poultry, 1,738 pounds of meat and 8,109 pounds of fish.

In accordance with the Acts of 1902, chapter 272, the following is the list of articles of adulterated food collected in original packages or from manufacturers, wholesalers or producers: —

Two samples of skimmed milk not properly labeled, produced by William P. Crowley of Newton; 1 sample of milk containing added water, produced by Fred H. Frost of Westborough; 2 samples of skimmed milk not properly labeled, produced by C. E. Small & Sons of Berlin; 1 sample of skimmed milk not properly labeled, produced by Harvey O. Winch of Templeton; 3 samples of milk containing added water, produced by Albert M. Bardwell of Westborough; 1 sample of skimmed milk not properly labeled, produced by O. N. Johnson of North Attleborough; 1 sample of skimmed milk not properly labeled, produced by Samuel London of Malden; 2 samples of milk containing added water, produced by Vincent Volta of Plymouth; 1 sample of Bell Bros' Red Seal Lemon Flavor, label false, a solution of citral, Bell Bros' Specialty Company, Boston; 1 sample of Casey's Pure Lemon, label false, a solution of citral, Casey's Tea Store, Milford; 2 samples of Casey's Pure Vanilla, label false, an alcoholic solution of vanillin, Casey's Tea Store, Milford; 2 samples of Bell Bros' Pure Extract of Vanilla, label false, an alcoholic solution of vanillin, Bell Bros' Specialty Company, Boston; 1 sample of Taylor's Pure Extract Vanilla, label false, an alcoholic solution of vanillin, Jersey Butter Company, Boston.

REPORT UPON THE WORK OF THE BACTERIOLOGICAL LABORATORY FOR THE MONTH OF JUNE, 1916.

The following gives the total number of bacteriological examinations made in the laboratory of the State Department of Health during the month of June, 1916: —

	Number of Examina- tions.	DIAGNOSIS.		RELEASE.	
		Positive.	Negative.	Positive.	Negative.
Diphtheria, . . .	788	91	486	50	162

	Number of Exami- nations.	Positive.	Negative.	*Atypical.
Tuberculosis, ...	273	62	211	
*Typhoid fever (Widal test), ...	81	10	69	2
Typhoid fever (culture test), ...	6	—	6	
Malaria, ...	4	1	3	
Miscellaneous, ...	124			

Total number of examinations made, 1,276.

The following gives the total number of biological products and diagnostic outfits distributed by the State Department of Health during the month of June, 1916: —

Biological Products.

Diphtheria antitoxin: —

12,000 units (special for the Boston City Hospital), ...	295 bottles.
6,000 units (special for the Boston City Hospital), ...	45 bottles.
3,000 units, ...	2,604 bottles.
2,000 units (special for the Boston City Hospital), ...	10 bottles.
1,500 units, ...	520 bottles.
750 units, ...	495 bottles.

Smallpox vaccine: —

Capillary tubes, ...	11,498
Bulk, ...	100

Typhoid vaccine: —

Ampoules, ...	8,549
Bulk, ...	6,250

Antimeningitis serum, ... 214 bottles.

Silver nitrate solution, ... 2,470

Diagnostic Outfits.

Culture tubes, ...	760
Culture media, ...	36
Sputum bottles, ...	382
Widal outfits, ...	389
Bile outfits, ...	8
Malaria outfits, ...	26

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation taken by State as of April 15, 1915.	Total Deaths from All Causes.	63A		19A		9		19B		6	
				Ante- rior Polio- myeli- tis.		Chick- en Pox.		Diph- theria.		Ger- man Men- sles.		Mea- sles.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	Massachusetts, ...	3,693,310	3,451	4	2	487	-	530	29	152	-	4281	50
2	CITIES OVER 200,000.												
3	Boston, ¹	745,439	-	-	-	177	-	168	-	46	-	933	-
4	CITIES, 150,000-200,000.												
5	Worcester, ...	162,697	226	-	-	4	-	28	4	-	-	331	9
6	CITIES, 100,000-150,000.	554,130	753	2	-	64	-	67	8	47	-	696	11
7	Fall River, ...	124,791	175	-	-	5	-	9	2	-	-	42	4
8	New Bedford, ...	109,568	163	1	-	12	-	9	1	-	-	22	1
9	Cambridge, ...	108,822	132	-	-	34	-	23	-	8	-	45	1
10	Lowell, ...	107,978	143	1	-	4	-	16	4	32	-	182	-
11	Springfield, ...	102,971	140	-	-	9	-	10	1	7	-	405	5
12	CITIES, 50,000-100,000.	396,020	445	-	-	35	-	91	8	5	-	570	13
13	Lynn, ...	95,803	95	-	-	2	-	16	-	1	-	42	3
14	Lawrence, ...	90,259	100	-	-	11	-	27	2	1	-	30	2
15	Somerville, ...	86,854	94	-	-	5	-	19	3	1	-	15	-
16	Brockton, ...	62,288	68	-	-	14	-	26	2	-	-	451	7
17	Holyoke, ...	60,816	88	-	-	3	-	3	1	2	-	32	-
18	CITIES AND TOWNS, 25,000-50,000.	566,381	550	1	1	93	-	74	2	11	-	403	3
19	Haverhill, ...	49,450	52	-	-	3	-	9	-	-	-	24	-
20	Malden, ...	48,907	45	-	-	9	-	8	1	5	-	14	-
21	Chelsea, ...	43,426	47	-	-	3	-	6	-	-	-	10	-
22	Newton, ...	43,113	33	1	-	6	-	-	-	1	-	168	1
23	Quincy, ...	40,674	21	-	1	9	-	1	-	-	-	7	-
24	Fitchburg, ...	39,565	38	-	-	2	-	15	1	-	-	55	-
25	Pittsfield, ...	39,607	38	-	-	4	-	3	-	1	-	6	-
26	Everett, ...	37,718	28	-	-	2	-	10	-	-	-	9	-
27	Salem, ...	37,200	38	-	-	9	-	4	-	-	-	5	-
28	Taunton, ...	36,161	59	-	-	2	-	2	-	-	-	3	-
29	Brookline, ...	33,490	22	-	-	5	-	1	-	-	-	28	-
30	Medford, ...	30,509	31	-	-	32	-	3	-	2	-	12	-
31	Waltham, ...	30,154	32	-	-	5	-	2	-	-	-	4	-
32	Chicopee, ...	30,138	49	-	-	2	-	3	-	2	-	58	2
33	Revere, ...	25,178	17	-	-	-	-	7	-	-	-	-	-
34	CITIES AND TOWNS, 10,000-25,000.	513,600	620	-	-	57	-	52	3	9	-	366	8
35	Gloucester, ...	24,478	34	-	-	-	-	6	-	-	-	27	1
36	Beverly, ...	22,959	19	-	-	10	-	4	-	-	-	3	-
37	North Adams, ...	22,035	26	-	-	-	-	-	-	-	-	-	-
38	Northampton, ...	21,654	38	-	-	12	-	1	-	1	-	21	-
39	Peabody, ...	18,625	30	-	-	1	-	3	1	-	-	32	-
40	Attleboro, ...	18,480	22	-	-	2	-	5	-	-	-	79	2
41	Westfield, ...	18,411	32	-	-	9	-	2	-	-	-	21	-
42	Leominster, ...	17,646	19	-	-	1	-	3	-	-	-	2	-
43	Melrose, ...	16,880	16	-	-	1	-	2	-	1	-	3	-
44	Watertown, ...	16,515	21	-	-	1	-	2	-	-	-	1	2
45	Woburn, ...	16,410	20	-	-	-	-	3	1	-	-	7	1
46	Gardner, ...	16,376	27	-	-	-	-	-	-	1	-	2	-
47	Framingham, ...	15,860	24	-	-	-	-	-	-	-	-	37	-
48	Newburyport, ...	15,311	9	-	-	-	-	-	-	-	-	2	-
49	Marlborough, ...	15,250	21	-	-	-	-	-	-	-	-	6	-
50	Arlington, ...	14,889	18	-	-	1	-	-	-	-	-	2	-
51	Southbridge, ...	14,217	16	-	-	-	-	1	-	-	-	3	-

¹ Boston death returns for May, 1916, not received at the office of the Secretary of the Commonwealth July 12, 1916.

TO THE PUBLIC HEALTH, MAY, 1916.

19C		38A		7		28		29-35		1		8		61A		176A		26		100		
Mumps.		Ophthal- mia Neona- torum.		Scar- let Fever.		Pulmo- nary Tuber- culosis.		Tuber- culosis, Other Forms.		Ty- phoid Fever.		Whoop- ing Cough.		Cere- bro- spinal Meningi- tis.		Dog- bite.		Pel- lagra.		Septic Sore Throat.		
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Lie No.
229	-	187	-	732	12	737	269	61	65	75	9	680	33	12	9	10	-	6	1	15	12	1
79	-	69	-	177	-	259	-	26	-	5	-	129	-	3	-	-	-	1	-	7	-	2
6	-	7	-	21	-	32	17	6	7	3	1	7	1	-	-	-	-	2	-	-	-	3
61	-	50	-	87	1	128	75	11	17	20	3	92	5	1	3	1	-	-	-	4	2	4
2	-	13	-	8	-	39	16	1	2	11	1	26	2	-	-	-	-	-	-	4	1	5
14	-	17	-	17	1	33	20	4	1	2	-	6	1	-	1	-	-	-	-	-	1	6
27	-	3	-	21	-	30	18	-	3	1	1	45	-	-	-	1	-	-	-	-	-	7
-	-	5	-	11	-	18	17	1	6	5	1	6	2	-	1	-	-	-	-	-	-	8
18	-	12	-	30	-	8	4	5	5	1	-	9	-	1	1	-	-	-	-	-	-	9
12	-	11	-	87	2	79	37	9	10	9	3	102	6	1	1	3	-	-	-	1	4	10
5	-	3	-	22	-	19	8	2	1	1	1	2	2	-	-	-	-	-	-	-	1	11
-	-	1	-	8	1	24	15	2	3	7	1	21	2	-	1	3	-	-	-	-	1	12
2	-	3	-	10	-	10	3	3	2	-	-	11	-	1	-	-	-	-	-	1	1	13
5	-	3	-	7	-	11	5	1	1	1	1	66	-	-	-	-	-	-	-	-	-	14
-	-	1	-	40	1	15	6	1	4	-	-	2	2	-	-	-	-	-	-	-	1	15
23	-	26	-	132	2	111	47	4	14	8	-	125	6	-	-	-	-	1	-	2	2	16
-	-	6	-	10	1	5	2	-	-	-	-	23	-	-	-	-	-	-	-	-	-	17
-	-	2	-	12	-	11	3	-	1	-	-	9	-	-	-	-	-	-	-	-	-	18
6	-	4	-	13	-	12	6	2	2	-	-	14	1	-	-	-	-	-	-	-	-	19
-	-	4	-	4	-	2	3	2	1	-	-	6	-	-	-	-	-	-	-	1	1	20
-	-	-	-	42	-	-	2	-	-	-	-	21	-	-	-	-	-	-	-	-	-	21
-	-	1	-	9	-	9	2	1	1	2	-	2	1	-	-	-	-	-	-	-	-	22
2	-	3	-	3	-	11	1	-	-	1	-	1	-	-	-	-	-	-	-	-	-	23
1	-	3	-	8	-	5	3	-	-	-	-	7	1	-	-	-	-	-	-	-	-	24
-	-	1	-	2	-	17	2	1	-	-	-	5	-	-	-	-	-	-	-	-	-	25
1	-	1	-	7	-	7	3	-	-	1	-	14	-	-	-	-	-	1	-	-	1	26
12	-	2	-	7	-	5	2	-	-	1	-	13	-	-	-	-	-	-	-	-	-	27
-	-	5	1	5	5	3	5	-	-	3	1	5	-	-	-	-	-	-	-	-	-	28
1	-	1	-	16	5	5	5	-	-	2	1	5	3	-	-	-	-	-	-	1	-	29
-	-	-	-	2	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
7	-	12	-	108	4	64	36	2	8	9	1	60	1	4	2	4	-	2	1	1	4	31
-	-	-	-	-	-	-	-	-	1	-	-	5	-	-	-	-	-	-	-	-	-	32
-	-	-	-	-	-	5	2	-	-	-	-	2	-	-	-	-	-	-	-	-	-	33
-	-	-	-	-	-	1	1	-	-	3	-	-	-	-	-	-	-	-	-	-	-	34
1	-	1	-	7	1	5	1	-	-	-	-	11	-	1	1	-	-	-	1	1	-	35
1	-	-	-	11	3	4	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	36
-	-	-	-	6	-	3	1	-	-	-	-	7	-	-	-	3	-	-	-	-	-	37
-	-	1	-	5	-	7	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	38
1	-	2	-	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39
1	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40
-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41
-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42
1	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44
1	-	-	-	6	-	2	2	-	1	1	-	-	-	-	-	-	-	-	-	-	-	45
-	-	-	-	2	-	6	2	1	1	-	-	4	-	-	-	-	-	-	-	-	-	46
-	-	1	-	6	-	2	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	47
-	-	-	-	6	-	3	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	48
1	-	1	-	5	-	1	2	-	-	2	-	-	-	1	-	-	-	-	-	-	-	49
-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation taken by State as of April 15, 1915.	Total Deaths from All Causes.	63A	19A	9	19B	6		
				Ante- rior Polio- myeli- tis.	Chick- en Pox.	Diph- theria.	Ger- man Mea- sles.	Mea- sles.		
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.
1	Methuen, ...	14,007	18	-	-	3	-	-	16	-
2	Weymouth, ...	13,969	16	-	-	-	-	-	2	-
3	Milford, ...	13,684	17	-	8	1	-	-	1	-
4	Adams, ...	13,218	10	-	-	-	-	-	31	1
5	Clinton, ...	13,192	17	-	1	-	-	-	43	-
6	Plymouth, ...	12,926	11	-	-	1	-	-	-	-
7	Wakefield, ...	12,781	11	-	1	1	-	-	1	-
8	Winthrop, ...	12,758	17	-	-	1	4	-	12	-
9	Greenfield, ...	12,618	14	-	-	1	1	-	4	-
10	Webster, ...	12,565	8	-	1	-	-	-	-	-
11	West Springfield, ...	11,339	10	-	-	5	-	-	1	1
12	Danvers, ...	11,177	31	-	-	-	-	-	3	-
13	Natick, ...	11,119	8	-	-	-	-	-	1	-
14	Dedham, ...	11,043	18	-	-	3	1	-	-	-
15	Norwood, ...	10,977	4	-	-	2	-	1	2	-
16	Saugus, ...	10,226	6	-	-	-	-	-	-	-
17	Winchester, ...	10,005	12	-	8	2	-	-	1	-
18	TOWNS, 5,000-10,000.	362,941	400	-	34	26	3	15	403	4
19	TOWNS, 2,500-5,000.	176,276	201	1	13	15	-	8	188	2
20	TOWNS UNDER 2,500.	216,826	266	-	10	9	1	11	391	1

In addition to the above there occurred 3 cases of anthrax, in Woburn; 4 cases of dysentery, 3 in Natick and 1 in Boston, and 3 deaths, 1 in Fall River, 1 in Taunton, and 1 in Milford; 5 cases of malaria, 3 in Boston, 1 in Worcester, and 1 in Marblehead, and 1 death in Fall River; 3 cases of tetanus, 2 in Boston and 1 in Weymouth; 1 case of smallpox in Fitchburg; and 6 cases of trachoma, 4 in Boston, 1 in Brookline, and 1 in Lowell.

MASSACHUSETTS STATE DEPARTMENT OF HEALTH.

Commissioner, ALLAN J. McLAUGHLIN, M.D.

Division of Administration,	. . .	
Division of Sanitary Engineering,	. . .	Director and Chief Engineer, X. H. GOODNOUGH, C.E.
Division of Communicable Diseases,	. . .	Director, E. R. KELLEY, M.D.
Division of Water and Sewage Laboratories,		Director and Chemist, H. W. CLARK.
Division of Biologic Laboratories,	. . .	Director and Pathologist, MILTON J. ROSENAU, M.D.
Division of Food and Drugs,	. . .	Director and Analyst, HERMANN C. LYTHGOE.
Division of Hygiene,	. . .	Director, SELSKAR M. GUNN.

Public Health Council.

ALLAN J. McLAUGHLIN, M.D., *Chairman.*

WM. T. SEDGWICK, Ph.D.	JOSEPH E. LAMOUREUX, M.D.
GEORGE C. WHIPPLE, S.B.	WM. J. GALLIVAN, M.D.
DAVID L. EDSALL, M.D.	JOHN T. WHEELWRIGHT.

State District Health Officers.

The Southeastern District,	. . .	ADAM S. MACKNIGHT, M.D., Fall River.
The Eastern District,	. . .	MERRILL E. CHAMPION, M.D., Wollaston.
The Northeastern District,	. . .	LYMAN A. JONES, M.D., Swampscott.
The North Midland District,	. . .	CHARLES E. SIMPSON, M.D., Lowell.
The South Midland District,	. . .	WILLIAM W. WALCOTT, M.D., Natick.
The Wachusett District,	. . .	FRANCIS A. FINNEGAN, M.D., Fitchburg.
The Connecticut Valley District,	. . .	JOHN S. HITCHCOCK, M.D., Northampton.
The Berkshire District,	. . .	STANLEY H. OSBORN, M.D., North Adams.

PUBLIC HEALTH BULLETIN

ISSUED MONTHLY

BY THE

STATE DEPARTMENT OF HEALTH
OF MASSACHUSETTS



AUGUST, 1916

Vol. 3, No. 8

ALLAN J. McLAUGHLIN, M.D., *Commissioner*

The Common Health of the Commonwealth

Entered as Second-class Matter Oct. 26, 1914, at the Post Office at Boston, Mass.
under the Act of Aug. 24, 1912.

CONTENTS.

	PAGE
Leprosy as a National and International Problem, ...	149
Food and Drugs, ...	151
Quarterly Report on Inspection of Slaughtering, ...	152
Quarterly Report on Cold Storage, ...	153
Résumé of Communicable Diseases for July, 1916, ...	154
Report of the Bacteriological Laboratory, ...	158
Cases and Deaths from Diseases Dangerous to the Public Health for Cities and Towns, June, 1916, ...	160

LEPROSY AS A NATIONAL AND INTERNATIONAL PROBLEM.

MR. FREDERICK L. HOFFMAN, statistician of the Prudential Insurance Company of America, in an address on "Leprosy as a National and International Problem," read before the Massachusetts health officers and invited guests while on a trip of inspection at the Massachusetts leper colony on Penikese Island, gave a brief account of his personal investigations at the leper settlements at Molokai, Hawaii; San Francisco, Cal.; Carville, La.; Spanish Town, Jamaica; Havana, Cuba; San José, Costa Rica; and Palo Seco, Panama, followed by a comprehensive analysis of the statistical information concerning leprosy throughout the world and a strong plea in favor of Senate Bill No. 4086, "To provide for the care and treatment of persons afflicted with leprosy, and to prevent the spread of leprosy in the United States," recommended for passage by the Senate committee on public health and national quarantine. Mr. Hoffman concluded with the following statement:—

Leprosy is the most ancient, as well as the most terrible, of all human afflictions. How many lepers there are in the world is a matter of conjecture, but it is conservatively estimated that there are not less than a million, but there may possibly be three times that many, chiefly in Asia and Africa, or in countries for which definite information is not obtainable. In the United States and its non-contiguous possessions there are not less than 4,000 lepers, of whom it is estimated that from 150 to 500 live on the mainland, chiefly in the southern States and the far west. There are reasons for believing that leprosy is on the increase in the United States and the West Indies, largely because of inadequate methods of segregation and control. The leper at large is a terrible menace to the community, and doomed to much needless humiliation, physical suffering and certain death. In properly conducted leper settlements, such as have been established by the territory of Hawaii at Molokai, by the State of Louisiana at Carville, by the State of Massachusetts at Penikese Island, and by the city of San Francisco, the leper is humanely cared for and given the reasonable assurance of a possible arrested condition of the disease and the remote prospect of a cure. The treatment and care of lepers involves unusual difficulties, which, aside from other important reasons, make it undesirable that leper cases should be treated in their homes or public hospitals, poorhouses, etc. Since the treatment and care may extend over many years, the element of cost is frequently a matter of serious importance to the community which finds itself called upon to

care for a patient whose home or settlement may be in another State. Since under the laws of the United States a leper apprehended in interstate transit becomes virtually a Federal charge, it is of the utmost importance that adequate provision should be made by the Federal government for the care of such cases in a Federal leprosarium. It is, therefore, to be hoped that the bill which has been introduced into Congress, providing for the establishment and maintenance of a Federal leprosarium, and which has been favorably recommended by the Senate committee on public health and national quarantine, may be enacted into law before adjournment. Every leper is rightfully entitled to the very best possible treatment and care. The tragedy of the leper's life is so appalling, the outlook for physical relief and permanent cure so discouraging, the risk of contagion to attendants and others so frightful, that in all the world there is nothing to compare or to contrast with the unhappy condition of the "unclean." The disease, as far as known, is not the result of any personal delinquencies on the part of the leper himself, of wrongful immoral conduct, or of vicious modes of living, but, in some way, or by some method, as yet not understood, the disease is spread by personal contact, for every known case can generally be traced to some other case, or at least to the risk of exposure to contagion in some known foci of leprosy infection. All that the government can do, or the States, or the most generous philanthropy, and last but not least, all that the individual can do by personal sacrifice, is but a simple Christian and humanitarian duty, calling for the highest and the best qualities of mind and soul. Father Damien is but a name for a host of men and women who, unknown to the world, have unselfishly and courageously surrendered themselves to the cause of the leper's care. It is the duty of every civilized nation to provide adequately and generously for the treatment and care of these most afflicted of human beings, who because of their affliction are practically helpless in every way to minister to their own wants and to safeguard others against the further spread of the disease. Civilization is real or apparent in proportion as the needs of the lepers in the community are suitably provided for. Government is successful or a failure in proportion as there is evidence of an increase or a diminution in the frequency of this disease. Wherever reasonably effective methods prevail, the disease is on the decline; and wherever such methods are being neglected, where the individual leper is permitted to roam at large, where he is hidden in out-of-the-way-buildings, or inadequately cared for in poorhouses, hospitals or jails, there the disease is on the increase. Surely this nation should be the last to plead inability to provide generously and adequately for the physical, medical, recreational and other needs of this small, but most afflicted, remnant of our vast and prosperous population. Surely if the nation has any duty to discharge more than any other, it is the duty to make up by prompt action for past neglect. Federal action is necessary in this field of national effort, where neither the States nor the communities can do the most and the best, proportionate to the problem which requires to be met. The community care of the individual leper is often a very expensive matter, whereas under conditions of effective segregation and control the unit cost of treatment is materially reduced. Of the many evidences of pre-eminence in the field of philanthropy and broad-minded governmental consideration towards

the afflicted and the poor on the part of the State of Massachusetts, the leper settlement on Penikese Island is entitled to rank above every other similar institution in this country. Not a single one of the inmates is of Massachusetts birth, nor, as far as known, of Massachusetts parentage. The inmates are chiefly Chinese, Greeks, Portuguese and other foreigners, some of whom, no doubt, came here in an infected condition, regardless of our quarantine laws and regulations. They are all being cared for in exactly the same manner as though they were citizens of Massachusetts, and by right of birth and settlement entitled to State care. The same enlightened policy has been pursued by the State of Louisiana and the city of San Francisco, but it seems only right and proper, in the case of patients nearly all of foreign birth or extraction, nearly all at one time residents of one or more other States than the one of final apprehension, that they should be cared for by the Federal government, in a Federal institution, at Federal expense. Nor are there sufficient reasons why this conclusion should not apply to the Federal care of lepers in all of the non-contiguous possessions of the United States. Leprosy, in fact, is not merely a national, but an international, problem, and it is the duty of this country, because of its wealth, its power and pre-eminence in practical philanthropy, to set an example to all the world in exerting its utmost effort towards the ultimate repression of this, the most ancient as well as the most terrible of all the afflictions of mankind.

FOOD AND DRUGS.

During the month of August, 1916, samples were collected in 47 cities and towns.

Of the 1,158 samples collected, 897 were milk, 191 were foods other than milk, and 70 were drugs. There were 8 samples of drugs which were below the requirements of the Pharmacopœia. There were 22 samples of food found to be adulterated, consisting of 2 samples of cream containing less than 15 per cent. of fat, 15 samples of ice cream containing less than 7 per cent. of fat, 1 sample of maple sugar containing cane sugar, 3 samples of Hamburg steak preserved with sulphites and not so labeled, and 1 sample of sausage containing starch in excess of 2 per cent. In addition, 9 samples of broken-out eggs were obtained from storage warehouses, of which 8 were decomposed. There were 246 samples of milk below standard, of which 14 were skimmed milk not properly labeled, 18 were milk containing added water, and 1 was a sample of milk containing visible dirt.

There were 31 convictions obtained for violation of the laws. The total amount of fines imposed was \$810. For violation of the milk law William P. Crowley of Needham, on 3 counts, Triampa G. Delyannis and David Stone of Hull, Alpha Tancrelle of Mendon, Harvey O. Winch of Templeton, and Frank Wisnowski of New Bedford were

convicted. For violation of the food laws Max Berman, Peter DiSalvatore, Max Edelstein, Max Golwasser, Jeremiah McAuliffe and Hyman Schwartz of Boston, Philip Gorodetzer of Chelsea, Charles J. Jaffe of Charlestown, Philip Kofman and Louis Ward of Roxbury, and the New Bedford Public Market were convicted. Messrs. Berman, Edelstein, Jaffe and the New Bedford Public Market appealed their cases. For violation of the drug laws Moses Berlant of Boston and Philip F. Fox of Holyoke were convicted. For violation of the cold-storage laws Harry Wilker of Revere, on 2 counts, was convicted. For violation of the slaughtering laws Joseph B. Eastwood ¹ of Lowell, Jesse Kemp ¹ of Tewksbury, on 2 counts, Paul B. Smith ¹ of Tewksbury, Charles H. Kemp ¹ of Lowell, Charles O. Sargent of Lincoln, on 2 counts, and Matthew Stevenson of Lexington were convicted.

There were 11 confiscations made, the total weight being 9,716 pounds. These were articles held in cold storage and consisted of 1,025 pounds of broken-out eggs, 1,379 pounds of meat, and 7,312 pounds of fish.

In accordance with the Acts of 1902, chapter 272, the following is the list of articles of adulterated food collected in original packages or from manufacturers, wholesalers or producers:—

One sample of skimmed milk not properly labeled, produced by Edward Flynn of Revere; 1 sample of skimmed milk not properly labeled, produced by John Roberts, 2d, of Nantucket; 2 samples of milk containing added water, produced by Louis Montenari of Plymouth; 1 sample of skimmed milk not properly labeled, produced by H. C. Norton of Oak Bluffs; 1 sample of skimmed milk not properly labeled, produced by Everett W. Donaldson of Northbridge; 1 sample of pure distilled extract of witch hazel from the Wm. H. Loveland Company, Binghamton, N. Y., low in alcohol.

SUMMARY OF REPORT ON INSPECTION OF SLAUGHTERING FOR THE QUARTER ENDING JUNE 30, 1916.

The inspectors of 26 towns failed to make the necessary reports upon their work, and those of 37 localities reported no slaughtering. The inspectors of 81 localities reported confiscations, and the balance, representing 209 localities, reported no confiscations. In the most of these localities, however, an insufficient number of animals were slaughtered to warrant the finding of any diseased meat, but in 25 localities sufficient carcasses were inspected to warrant the presence of some cause for confiscation in each instance, as judged by the total number inspected throughout the State.

¹ The evidence in these cases was collected in collaboration with Dr. C. A. Hamblet, inspector of slaughtering for the city of Lowell.

In all 5,618 cattle were inspected of which 124 were confiscated, representing 2.21 per cent., or 1 of each 45 cattle. The total number of calves inspected was 20,668, of which 229 were confiscated, representing 1.44 per cent., or 1 of each 70 calves. The total number of hogs inspected was 10,052 of which 59 were confiscated, representing 1 of each 169 hogs inspected.

Of the cattle confiscated, 83.2 per cent. were tuberculous. The next prevailing cause for confiscation was parturient apoplexy, for which 5.8 per cent. were confiscated. The balance of 11 per cent. were confiscated for 11 different causes.

Of the calves confiscated 91.4 per cent. were immature, 5.7 per cent. were bruised and 0.7 per cent. were tuberculous. The balance of 2.2 per cent. were confiscated for 4 different causes.

Of the hogs confiscated, 25.4 per cent. had hog cholera, 22.06 per cent. had pneumonia and 20.2 per cent. were tuberculous. There were 13.6 per cent. killed by dogs, and the balance of 18.8 per cent. were confiscated for 8 different causes.

The summary of all these figures shows that 56.7 per cent. of the animals confiscated were immature and 24.3 per cent. were tuberculous.

The comparatively high prevalence of parturient apoplexy in the beef cattle which were confiscated is significant. In all probability it is not infrequent that many farmers send to the butcher their cows which, by reason of difficulty in calving, are liable to die, hoping, no doubt, that by this means the sick cows would not be a total loss, provided that the inspector passed the carcasses for food purposes. Without doubt many such carcasses are passed. The high prevalence of tuberculosis in cattle is unfortunate. It is an enormous economic loss that nearly 2 per cent. of the beef slaughtered in this State must be condemned by reason of the presence of this disease.

SUMMARY OF REPORT ON COLD STORAGE OF FOOD FOR THE QUARTER ENDING JUNE 30, 1916.

The cold-storage warehouses, with but one exception, filed their reports before July 25, as required by the statutes. The neglect to file this report will be brought to the attention of the court. A compilation of these reports shows that 16,678,116 dozens of eggs, 938,369 pounds of broken-out eggs, 13,004,674 pounds of butter, 1,774,667 pounds of poultry, 2,808 pounds of game, 9,563,463 pounds of fresh meat, 296,619 pounds of fresh-meat products, and 10,053,298 pounds of fresh fish were placed in storage in this State during the past three months.

The amount of eggs placed in storage is 4,000,000 dozens less than that stored during the same period last year. The amount of butter is 1,000,000 pounds less. The amount of poultry 400,000 pounds less than was stored last year.

On the contrary, 800,000 pounds more meat and 2,000,500 pounds more fish have been placed in storage this year. On the first day of July there were held in storage 16,288,146 dozens of eggs, 936,375 pounds of broken-out eggs and 12,031,790 pounds of butter. This is 4,800 dozens of eggs and 120,000 pounds of butter less than were on hand in storage upon July 1, 1916.

RÉSUMÉ OF COMMUNICABLE DISEASES FOR JULY, 1916.

INFANTILE PARALYSIS.

The present epidemic of infantile paralysis in New York City, the largest epidemic so far reported, has been in progress since early in July, though some cases were reported earlier. The outbreak has occasioned considerable alarm, due to the large number of cases, — 7,446 to date, August 24, — to the unusual fatality, amounting to rather more than 20 per cent., and to the fact that of those who recover the majority are left with a varying amount of permanent defect.

For the last ten years infantile paralysis has been studied extensively and intensively, both in this country and abroad, and while knowledge of the disease has greatly increased, many baffling problems still await solution.

While the nature of the infection is known, and while it is maintained that the disease is transmitted by contact, the evidence seems conflicting, since, including so-called abortive cases, in the majority of instances there is but one case in a family, even though there may be from two to six or eight or more children in the household, and the contact of the most intimate nature, while other cases occur in remote, isolated sections, with no discoverable evidence of contact. Manifestly, in view of such experiences, it is reasonable to assume that some further factor at present unknown enters into the transmission of this disease, and that it is much less readily transmitted than measles, whooping cough, diphtheria, etc.

To explain the seeming inconsistencies mentioned above, the sug-

gestion has been made that the abortive cases, which are believed to confer subsequent immunity, are much more frequent than the frank paralyzed cases, — that, in fact, we have nearly all had the disease in an unrecognized form and are hence immune. Such a theory seems rather far-fetched, unless further evidence is available.

Until more definite knowledge is obtained, preventive measures will of necessity be uncertain in their results, and should be reasonably modeled on analogy to other better known communicable diseases, such as diphtheria or scarlet fever, and should not be made too drastic, nor be permitted unreasonably to interfere with traffic. The sick room should be screened to keep out flies and other insects.

The patient and attendant should be isolated, and children in the household detained from school and kept under observation. Since the infectious agent is known to be contained in the secretions of the nose and throat and bowel discharges, all such discharges should be thoroughly destroyed or disinfected.

The attempted extension of rigid quarantine of one community against another merely because cases of infantile paralysis have occurred in the other, especially as applied to adults who have had no known contact with cases, is unreasonable and the result of fear not founded on common sense.

Persons coming from infected premises may properly be kept under observation for two weeks, and the people of each community should co-operate with the local health authorities to the extent of notifying them promptly of any suspicious illness and by consulting the family physician early, even if the illness appear trivial.

Meantime it is to be hoped that the further intensive study of the disease now in progress will soon enable preventive measures to be applied intelligently and successfully.

During the early part of the year 30 cases of infantile paralysis were reported throughout the State of Massachusetts. A marked increase of cases occurred in July, when there were reported 107 cases, 10 of which upon investigation proved to be negative or doubtful.

Westfield, North Adams, Dudley, Webster, Worcester, New Bedford, Fall River and the metropolitan district constitute the chief centers of infection, though it is a striking feature that Boston itself has been comparatively free from the disease.

Cases of infantile paralysis were reported in July, as follows: New Bedford and Westfield, 10 each; North Adams, 8; Boston and Worcester, 7 each; Springfield, 6; Fall River, 5; Dudley, Palmer and Webster, 3 each; 2 cases each in Adams, Hingham, Lawrence, Lowell, Marlborough, Medway, Pittsfield, and West Springfield; 1 case each in

Barnstable, Bridgewater, Dartmouth, Easthampton, Fairhaven, Fitchburg, Greenfield, Haverhill, Hawley, Holyoke, Malden, Maynard, Middleborough, Natick, Newton, Norwood, Peabody, Plymouth, Quincy, Raynham, Revere, Sharon, Sheffield, Somerville, Taunton, Townsend, Weston, Woburn, and Worthington.

Children coming from New York constitute 10 of these cases, while 7 others are known to have been in contact with cases or persons from New York.

The age distribution of the cases so far reported is practically the same as in previously reported outbreaks and as in the present epidemic in New York. Cases under one and over fifteen years of age are very few, with the great majority of cases between one and ten years of age.

While the reports are as yet incomplete, it is known that there were 9 deaths from the disease in July, and a large percentage of these occurred in cases reported from New York.

OTHER COMMUNICABLE DISEASES.

Prevalence. — The communicable diseases have decreased in comparison with the month of June, 1916, but were present in about the same amount as during July, 1915.

	TOTAL CASES REPORTED.		Average for Five Years, 1910-14.
	July, 1915.	July, 1916.	
Cases,	5,364	5,726	2,960
Case incidence per 100,000 population, . . .	145 ¹	156 ¹	80 ¹

¹ Approximately.

Measles is the only one of the communicable diseases that shows an increase in comparison with the same month, 1915.

	TOTAL CASES REPORTED.		Average for Five Years, 1910-14.
	July, 1915.	July, 1916.	
Cases,	1,932	2,713	960
Case incidence per 100,000 population, . . .	52 ¹	73 ¹	26 ¹

¹ Approximately.

The following cities and towns have exceeded their endemic index for July: —

[Endemic index signifies the average for five years of reported cases exclusive of epidemics. This index is applied to each city and town for each month for every communicable disease. The numbers in parentheses after the names of each city and town indicate the endemic index for that city or town. The numbers without parentheses indicate the cases reported during the current month.]

Attleboro, ...	(2)	11	Lowell, ...	(25)	284
Brimfield, ...	(0)	7	Leominster, ...	(2)	33
Cambridge, ...	(31)	85	Mansfield, ...	(1)	81
Dartmouth, ...	(0)	10	North Adams, ...	(1)	111
Danvers, ...	(3)	32	Springfield, ...	(17)	60
Holyoke, ...	(7)	134	Worcester, ...	(28)	63
Gloucester, ...	(1)	31			

Diphtheria shows a decrease in comparison both with last month and with July, 1915. The following cities and towns have exceeded their endemic index for July: —

Brockton, ...	(5)	10	New Bedford, ...	(7)	12
Cambridge, ...	(14)	23	Walpole, ...	(0)	4
Lynn, ...	(13)	21	Winchester, ...	(0)	7
Natick, ...	(2)	6			

Scarlet fever has shown a very marked decrease, both in comparison with last month and with July, 1915. There are practically no places in the Commonwealth in which scarlet fever is an important factor at the present time. In fact, there are only 248 cases in the whole State during July.

Whooping Cough. — During July there were 493 cases of whooping cough reported to this Department, while in the month of July, 1915, there were 633 cases. This decrease indicates a decline of the general prevalence of this infection.

The following cities and towns have exceeded their whooping cough endemic index for July: —

Brockton, ...	(3)	84	Haverhill, ...	(2)	20
Hull, ...	(0)	16	Framingham, ...	(3)	18

Typhoid Fever. — It is gratifying to report that the incidence of typhoid continues to be very low. However, there were considerably more cases reported during July than the month previous. The only

place in the Commonwealth which exceeded its typhoid fever endemic index during July was Fall River.

Tuberculosis. — There has been a slight decrease in the number of cases of tuberculosis reported to this Department during July, as compared with July, 1915. With our increased facilities for handling this disease it seems as if we should be getting an increased number of reported cases.

Rare Diseases. — Septic sore throat was reported from Boston (2), Groveland (1), New Bedford (1), Springfield (1), Williamsburg (1).

Dysentery was reported from Boston (14) and Cambridge (1).

Pellagra was reported from Boston (2), Whitman (1) and Worcester (1).

Tetanus was reported from Fall River (1), Lowell (1) and Weymouth (1).

REPORT UPON THE WORK OF THE BACTERIOLOGICAL LABORATORY FOR THE MONTH OF JULY, 1916.

The following gives the total number of bacteriological examinations made in the laboratory of the State Department of Health during the month of July, 1916: —

	Number of Examina- tions.	DIAGNOSIS.		RELEASE.	
		Positive.	Negative.	Positive.	Negative.
Diphtheria, . . .	573	69	180	66	25S

	Number of Exami- nations.	Positive.	Negative.	*Atypical.
Tuberculosis, . . .	266	65	201	—
*Typhoid fever (Widal test), . . .	140	32	101	7
Typhoid fever (culture test), . . .	17	—	17	—
Miscellaneous, . . .	149	—	—	—

Total number of examinations made, 1,145.

The following gives the total number of biological products and diagnostic outfits distributed by the State Department of Health during the month of July, 1916:—

Biological Products.

Diphtheria antitoxin:—

12,000 units (special for the Boston City Hospital),	174 bottles.
6,000 units (special for the Boston City Hospital),	24 bottles.
3,000 units,	2,139 bottles.
2,000 units (special for the Boston City Hospital),	48 bottles.
1,500 units,	541 bottles.
750 units,	426 bottles.

Smallpox vaccine:—

Capillary tubes,	6,350
Bulk,	100

Typhoid vaccine:—

Ampoules,	1,970
Bulk,	1,000

Antimeningitis serum,	120 bottles.
-----------------------	--------------

Silver nitrate solution,	2,802 ampoules.
--------------------------	-----------------

Diagnostic Outfits.

Culture tubes,	506
Culture media,	42
Sputum bottles,	378
Widal outfits,	171
Bile outfits,	44
Malaria-Gonorrhœa outfits,	34

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation taken by Stat- as of April 15, 1915.	Total Deaths from All Causes.	63A		19A		9		19B		6	
				Ante- rior Polio- myeli- tis.		Chick- en Pox.		Diph- theria.		Ger- man Meas- les.		Meas- les.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	Massachusetts, ...	3,693,310	2,903	10	1	422	-	642	35	164	-	4,459	69
2	CITIES OVER 200,000.												
3	Boston, ...	745,439	-	-	-	179	-	276	13	47	-	1,394	20
4	CITIES, 150,000-200,000.												
5	Worcester, ...	162,697	219	1	-	6	-	26	4	1	-	242	16
6	CITIES, 100,000-150,000.	554,136	594	3	-	36	-	46	4	34	-	713	16
7	Fall River, ...	124,791	125	1	-	12	-	9	3	-	-	36	4
8	New Bedford, ...	109,568	137	2	-	3	-	7	1	-	-	42	4
9	Cambridge, ...	108,822	113	-	-	10	-	22	-	4	-	136	-
10	Lowell, ...	107,978	137	-	-	1	-	5	-	29	-	345	6
11	Springfield, ...	102,971	82	-	-	10	-	3	-	1	-	154	2
12	CITIES, 50,000-100,000.	396,020	341	1	-	32	-	62	2	5	-	288	3
13	Lynn, ...	95,803	84	-	-	5	-	21	1	-	-	13	1
14	Lawrence, ...	90,259	89	-	-	6	-	14	-	3	-	27	-
15	Somerville, ...	86,854	63	1	-	8	-	14	1	-	-	24	-
16	Brockton, ...	62,288	43	-	-	9	-	11	-	-	-	107	2
17	Holyoke, ...	60,816	62	-	-	4	-	2	-	2	-	117	-
18	CITIES AND TOWNS, 25,000-50,000.	565,381	518	2	1	80	-	119	7	23	-	427	1
19	Haverhill, ...	49,450	45	-	-	5	-	19	1	3	-	28	-
20	Malden, ...	48,907	34	-	-	4	-	2	-	1	-	44	-
21	Chelsea, ...	43,426	51	-	-	8	-	7	-	-	-	2	-
22	Newton, ...	43,113	36	1	-	15	-	1	-	-	-	101	-
23	Quincy, ...	40,674	31	-	1	3	-	16	-	-	-	7	1
24	Fitchburg, ...	39,565	48	-	-	4	-	12	1	-	-	129	-
25	Pittsfield, ...	39,607	37	-	-	1	-	5	1	1	-	2	-
26	Everett, ...	37,718	26	-	-	1	-	10	-	5	-	11	-
27	Salem, ...	37,200	34	1	-	14	-	21	1	-	-	2	-
28	Taunton, ...	36,161	57	-	-	3	-	5	2	2	-	2	-
29	Brookline, ...	33,490	17	-	-	5	-	3	-	-	-	13	-
30	Medford, ...	30,509	34	-	-	14	-	6	-	5	-	5	-
31	Waltham, ...	30,154	26	-	-	2	-	4	-	-	-	34	-
32	Chicopee, ...	30,138	30	-	-	-	-	4	1	6	-	47	-
33	Revere, ...	25,178	12	-	-	1	-	4	-	-	-	-	-
34	CITIES AND TOWNS, 10,000-25,000.	513,600	543	1	-	41	-	45	2	18	-	341	4
35	Gloucester, ...	24,478	32	-	-	-	-	2	-	-	-	30	-
36	Beverly, ...	22,959	26	-	-	1	-	4	-	-	-	2	-
37	North Adams, ...	22,035	20	-	-	-	-	1	-	-	-	23	-
38	Northampton, ...	21,654	31	-	-	8	-	-	-	-	-	33	-
39	Peabody, ...	18,625	20	-	-	3	-	3	-	-	-	12	-
40	Attleboro, ...	18,480	21	-	-	-	-	-	-	-	-	27	1
41	Westfield, ...	18,411	32	-	-	4	-	1	1	-	-	16	1
42	Leominster, ...	17,646	15	-	-	4	-	4	-	-	-	10	-
43	Melrose, ...	16,880	19	-	-	3	-	1	-	1	-	1	-
44	Watertown, ...	16,515	8	-	-	-	-	1	-	-	-	-	-
45	Woburn, ...	16,410	15	-	-	-	-	1	-	-	-	-	-
46	Gardner, ...	16,376	17	-	-	-	-	-	-	-	-	107	-
47	Framingham, ...	15,860	22	-	-	3	-	-	-	-	-	20	-
48	Newburyport, ...	15,311	15	-	-	1	-	-	-	-	-	-	-
49	Marlborough, ...	15,250	16	-	-	-	-	-	-	-	-	7	-
50	Arlington, ...	14,889	16	-	-	-	-	-	-	-	-	3	-
51	Southbridge, ...	14,217	15	-	-	-	-	5	1	-	-	4	-

TO THE PUBLIC HEALTH, JUNE, 1916.

19C		38A		7		28		29-35		1		8		61A		176A		4		26		Line No.
Mumps.		Ophthal- mia Neona- torum.		Scar- let Fever.		Pulmo- nary Tuber- culosis.		Tuber- culosis, Other Forms.		Ty- phoid Fever.		Whoop- ing Cough.		Cere- bro- spinal Mening- itis.		Dog Bite.		Mala- ria.		Pella- gra.		
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
203	-	179	-	492	14	696	324	64	90	76	10	566	27	21	19	9	-	13	2	7	3	1
89	-	65	-	147	4	269	80	25	16	14	2	148	4	11	9	-	-	3	-	1	-	2
3	-	14	-	14	1	25	16	1	8	1	-	5	3	1	2	1	-	1	-	2	1	4
55	-	30	-	42	2	123	63	5	14	30	2	61	3	2	3	1	-	1	-	-	-	5
3	-	7	-	6	-	36	16	-	1	18	1	16	-	1	1	-	-	-	-	-	-	7
13	-	12	-	10	-	40	14	4	4	6	-	4	1	-	1	-	-	-	-	-	-	8
30	-	3	-	4	-	24	19	-	2	4	2	29	1	1	-	-	-	-	-	-	-	9
-	-	1	-	5	1	16	8	-	2	4	-	6	1	-	1	1	-	-	-	-	-	10
9	-	7	-	17	1	7	6	1	3	-	1	6	-	-	-	-	1	-	-	-	-	11
14	-	26	-	52	-	81	30	11	13	5	1	100	2	2	2	3	-	-	-	-	-	12
1	-	8	-	13	-	20	6	3	-	-	-	1	-	1	1	-	-	-	-	-	-	13
2	-	3	-	4	-	18	8	1	3	4	1	3	1	1	1	3	-	-	-	-	-	14
10	-	4	-	9	-	19	7	3	2	1	-	10	1	-	-	-	-	-	-	-	-	15
1	-	7	-	2	-	14	4	3	2	-	-	85	-	-	-	-	-	-	-	-	-	16
-	-	4	-	24	-	10	5	2	5	-	-	1	-	-	-	-	-	-	-	-	-	17
12	-	24	-	78	2	79	35	11	10	10	3	71	5	1	-	-	-	6	2	-	-	18
-	-	3	-	4	-	10	5	3	2	1	-	6	1	-	-	-	-	-	-	-	-	19
4	-	3	-	8	-	10	2	-	1	1	1	6	1	-	-	-	-	-	-	-	-	20
1	-	6	-	9	-	9	3	1	-	-	-	3	-	-	-	-	-	-	1	-	-	21
1	-	-	-	2	-	2	-	-	-	2	-	4	1	-	-	-	-	4	-	-	-	22
1	-	1	-	11	-	1	4	-	2	-	-	2	2	-	-	-	-	-	-	-	-	23
2	-	2	-	9	-	4	1	3	2	3	2	2	-	-	-	-	-	-	-	-	-	24
2	-	3	-	4	-	4	2	-	-	1	-	2	-	-	-	-	-	-	-	-	-	25
2	-	2	-	6	-	9	3	-	-	1	-	7	-	-	-	-	-	-	-	-	-	26
2	-	-	-	2	-	3	5	1	2	-	-	5	-	-	-	-	-	-	-	-	-	27
-	-	-	-	-	-	6	3	-	-	1	-	3	-	-	-	-	2	1	-	-	-	28
-	-	-	-	7	1	2	2	-	-	-	-	4	-	-	-	-	-	-	-	-	-	29
2	-	2	-	5	-	3	2	1	-	-	-	8	2	-	-	-	-	-	-	-	-	30
-	-	1	-	7	1	1	2	-	1	-	-	13	-	-	-	-	-	-	-	-	-	31
-	-	-	-	1	11	1	1	1	1	-	-	3	-	-	1	-	-	-	-	-	-	32
-	-	1	-	3	-	4	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	33
10	-	5	-	74	5	66	28	4	12	7	1	76	2	1	2	1	-	-	-	4	2	34
-	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	35
-	-	-	-	-	-	3	3	-	-	-	2	1	2	-	-	-	-	-	-	-	-	36
1	-	1	-	3	-	9	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	37
-	-	1	-	3	-	9	2	-	-	-	-	2	1	-	-	-	-	-	-	-	-	38
-	-	1	-	18	4	2	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	39
-	-	-	-	2	-	5	1	-	-	1	-	1	-	-	-	-	-	-	-	-	-	40
-	-	-	-	-	-	4	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	41
-	-	-	-	-	-	9	-	-	1	-	-	6	-	-	-	-	-	-	-	-	-	42
-	-	-	-	2	1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	43
-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44
-	-	-	-	1	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	45
-	-	-	-	2	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	46
-	-	-	-	1	-	-	-	-	1	-	-	7	-	-	-	-	-	-	-	-	-	47
-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	48
6	-	-	-	1	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49
-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50
-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation taken by State as of April 15, 1915.	Total Deaths from All Causes.	63A		19A		9		19B		6	
				Ante- rior Polio- myeli- tis.		Chick- en Pox.		Diph- theria.		Ger- man Mea- sles.		Mea- sles.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
52	Methuen, ...	14,007	15	-	-	-	-	4	-	-	-	1	-
53	Weymouth, ...	13,969	15	-	-	-	-	-	-	-	-	-	-
54	Milford, ...	13,634	11	-	-	-	-	-	-	-	-	1	-
55	Adams, ...	13,213	12	-	-	-	-	2	-	-	-	1	2
56	Clinton, ...	13,192	9	1	-	-	-	1	-	-	-	12	-
57	Plymouth, ...	12,926	18	-	-	-	-	1	-	-	-	-	-
58	Wakefield, ...	12,781	12	-	-	1	-	1	-	-	-	-	-
59	Winthrop, ...	12,758	10	-	-	-	-	3	-	14	-	6	-
60	Greenfield, ...	12,618	7	-	-	-	-	-	-	-	-	5	-
61	Webster, ...	12,565	11	-	-	1	-	-	-	-	-	1	-
62	West Springfield, ...	11,339	10	-	-	-	-	-	-	-	-	5	-
63	Danvers, ...	11,177	32	-	-	-	-	-	-	-	-	3	-
64	Natick, ...	11,119	8	-	-	-	-	3	-	-	-	1	-
65	Dedham, ...	11,043	9	-	-	10	-	1	-	-	-	4	-
66	Norwood, ...	10,977	8	-	-	-	-	1	-	3	-	2	-
67	Saugus, ...	10,226	5	-	-	-	-	-	-	-	-	-	-
68	Winchester, ...	10,005	11	-	-	2	-	5	-	-	-	4	-
69	TOWNS, 5,000-10,000.	562,941	507	-	-	29	-	19	1	15	-	569	4
70	TOWNS, 2,500-5,000.	176,276	155	2	-	7	-	29	2	7	-	173	4
71	TOWNS UNDER 2,500.	216,826	226	-	-	12	-	20	-	14	-	314	1

In addition to the above there occurred 1 case of actinomycosis in Winchendon; 5 cases of anthrax, 1 in Norwood, 1 in Winchester, 3 in Woburn and 1 death in Boston; 1 case of dysentery in Natick and 2 deaths, — 1 in Gay Head and 1 in Lowell; 1 death from leprosy in Gosnold; 6 cases of septic sore throat, 3 in Boston, 1 in Boylston, 1 in Fall River, and 1 in Littleton, and 4 deaths, — 1 in Lynn, 1 in Peabody, 1 in Hatfield and 1 in Waltham; 1 case of smallpox in Fitchburg; 4 cases of tetanus, 1 in Boston, 1 in Dartmouth, 1 in Fitchburg and 1 in Malden, and 3 deaths, — 1 in Fall River, 1 in Lowell and 1 in Malden; and 6 cases of trachoma, 3 in Boston, 1 in Fitchburg, 1 in Taunton and 1 in Woburn.

TO THE PUBLIC HEALTH — *Concluded.*

19C		38A		7		28		29-35		1		8		61A		176A		4		26	
Mumps.		Oph- thalmia Neona- torum.		Scar- let Fever.		Pulmo- nary Tuber- culosis.		Tuber- culosis, Other Forms.		Ty- phoid Fever.		Whoop- ing Cough.		Cere- bro- spinal Menin- gitis.		Dog Bite.		Mala- ria.		Pella- gra.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
-	-	-	-	3	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	5	-	1	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-
-	-	1	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	7	-	4	-	-	-	1	-	15	-	-	-	-	-	-	-	-	-
-	-	-	-	2	-	1	-	-	1	-	-	7	-	-	1	-	-	-	-	-	-
-	-	-	-	1	-	1	1	-	-	-	-	4	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	1	-	1	-	2	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
-	-	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	1	-	2	4	-	-	-	-	3	-	1	-	-	-	-	-	3	2
-	-	-	-	1	-	1	1	-	2	1	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	4	1	-	1	-	-	6	-	-	-	-	-	-	-	-	-
1	-	-	-	7	-	1	-	-	1	-	-	3	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	2	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	1	-	1	1	-	1	-	-	17	-	-	-	-	-	-	-	-	-
4	-	11	-	44	-	38	24	5	7	4	-	75	5	3	-	3	-	2	-	-	-
-	-	1	-	17	-	4	12	2	4	5	-	12	2	-	-	-	-	-	-	-	-
16	-	3	-	24	-	11	36	-	6	-	1	18	1	-	1	-	-	-	-	-	-

Line No.

52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71

MASSACHUSETTS STATE DEPARTMENT OF HEALTH.

Commissioner, ALLAN J. McLAUGHLIN, M.D.

Division of Administration,	. . .	
Division of Sanitary Engineering,	. . .	Director and Chief Engineer, X. H. GOODNOUGH, C.E.
Division of Communicable Diseases,	. . .	Director, E. R. KELLEY, M.D.
Division of Water and Sewage Laboratories,		Director and Chemist, H. W. CLARK.
Division of Biologic Laboratories,	. . .	Director and Pathologist, MILTON J. ROSENAU, M.D.
Division of Food and Drugs,	. . .	Director and Analyst, HERMANN C. LYTHGOE.
Division of Hygiene,		Director, LYMAN A. JONES, M.D.

Public Health Council.

ALLAN J. McLAUGHLIN, M.D., *Chairman.*

WM. T. SEDGWICK, Ph.D.	JOSEPH E. LAMOUREUX, M.D.
GEORGE C. WHIPPLE, S.B.	WM. J. GALLIVAN, M.D.
DAVID L. EDSALL, M.D.	JOHN T. WHEELWRIGHT.

State District Health Officers.

The Southeastern District,	. . .	ADAM S. MacKNIGHT, M.D., Fall River.
The Eastern District,	. . .	MERRILL E. CHAMPION, M.D., Wollaston.
The Northeastern District,	. . .	ARTHUR A. BROWN, M.D., Swampscott.
The North Midland District,	. . .	CHARLES E. SIMPSON, M.D., Lowell.
The South Midland District,	. . .	WILLIAM W. WALCOTT, M.D., Natick.
The Wachusett District,	. . .	FRANCIS A. FINNEGAN, M.D., Fitchburg.
The Connecticut Valley District,	. . .	JOHN S. HITCHCOCK, M.D., Northampton.
The Berkshire District,	. . .	STANLEY H. OSBORN, M.D., North Adams.

PUBLIC HEALTH BULLETIN
ISSUED MONTHLY
BY THE
STATE DEPARTMENT OF HEALTH
OF MASSACHUSETTS



SEPTEMBER, 1916

Vol. 3, No. 9

ALLAN J. McLAUGHLIN, M.D., *Commissioner*

The Common Health of the Commonwealth

Entered as Second-class Matter Oct. 26, 1914, at the Post Office at Boston, Mass.,
under the Act of Aug. 24, 1912.

CONTENTS.

	PAGE
State Department of Health, Division of Food and Drugs, Points of Contact with	
Local Boards of Health, ...	167
Food and Drugs, ...	174
Résumé of Communicable Diseases for August, 1916, ...	175
Report of the Bacteriological Laboratory, ...	180
Cases and Deaths from Diseases Dangerous to the Public Health for Cities and	
Towns, July, 1916, ...	182

POINTS OF CONTACT OF DIVISION OF FOOD AND DRUGS OF THE STATE DEPARTMENT OF HEALTH WITH LOCAL BOARDS OF HEALTH.

BY HERMAN C. LYTHGOE, DIRECTOR, DIVISION OF FOOD AND DRUGS.

The Division of Food and Drugs is one of the new divisions and was created by the Commissioner of Health from several entities which were in existence under the State Board of Health. These entities were the food and drug laboratory force, the food and drug inspectors and the department of cold storage, slaughtering, and dairy inspection. The chief analyst, in charge of the food and drug laboratory, was made the director of the Division.

The following persons are employed by the Division: —

1 director and analyst.

4 assistant analysts.

4 inspectors appointed under the food and drug laws.

2 inspectors appointed under the cold-storage laws.

3 veterinary inspectors appointed under the slaughtering laws.

3 clerks.

1 office boy.

The Division is charged with the enforcement of the laws relating to food and drugs. About 12,000 samples are examined per annum, the analyses of which are all made in the laboratory of the Division. Of these samples 9,000 are milk, 1,200 foods other than milk, 900 drugs, 500 are samples taken from cold storage, 300 are samples of poison submitted by police authorities, and 100 are liquors submitted by police. The Division enforces the general and specific laws relating to the adulteration of milk, the adulteration of food and the adulteration of drugs. It also enforces the general and special laws relating to the cold storage of food, and a portion of the laws relating to slaughtering.

In the enforcement of the above laws we have absolute control of the machinery of enforcement up to the time the case reaches the courts. In addition to enforcing the above laws the Division does a large amount of work over which it has but partial control. It is

required to make examinations of liquor for police authorities, to examine paints, oils and turpentine for the Massachusetts District Police, to examine poisons for police authorities and liquor for local boards of health. In all but the latter instance, however, we must have the assurance that the authority submitting the sample intends to use the analysis in the enforcement of law. After these analyses are made a certificate is prepared, which is *prima facie* evidence in court of the quality of the article examined. The greater part of the work of the Division is entirely separate from other divisions in the Department, and from other authorities throughout the State, but in a few instances we come in contact with local boards of health. These instances are as follows: —

APPOINTMENT OF INSPECTORS OF SLAUGHTERING.

The statutes require that local boards of health must annually in March nominate one or more inspectors of slaughtering. These nominees cannot be appointed inspectors of slaughtering until they have been approved by the State Department of Health. In general these nominees are approved, but occasionally the Department finds it necessary to make disapprovals. Nominees are disapproved for the following reasons: —

1. Members of local boards of health are disapproved according to advice from three Attorneys-General that it is illegal for persons to appoint themselves to office.

2. Persons engaged in the business of slaughtering are disapproved because it is not expected that any person can give an unbiased opinion of his own work. If a man is in the business of slaughtering and is the inspector he would be liable to lose business if he made it a practice of condemning carcasses which he himself had slaughtered. The temptation to pass meat which should be condemned is, therefore, greater if the inspector is the slaughterer than if he were not the slaughterer.

3. Persons convicted for violation of the slaughtering laws are invariably disapproved. The reason is obvious.

4. Persons who, in our opinion, have violated the slaughtering laws, and against whom insufficient evidence can be secured to warrant conviction in court, are, as a rule, disapproved if the evidence is in our opinion sufficiently circumstantial to warrant the action.

5. Incompetent persons are disapproved.

It is a difficult matter to pass upon about 400 nominees for these various positions throughout the State between the time the nominations are received and the first day of April. It was formerly the

practice to send inspectors about the State to see the various nominees and to report upon their qualifications. This was a very expensive mode of procedure, and in some respects was unsatisfactory owing to the difficulty of finding the man at home in many instances at the time when the inspector called. A slightly different mode of procedure was put into operation this year, with very good results. This procedure is as follows:—

1. A circular letter is sent to each board of health on the first of March calling their attention to the necessity of making nominations for the position of inspectors of slaughtering, and enclosing a blank upon which the nominations are to be made.

2. Upon receipt of the nominations a blank is sent to each nominee asking (a) the name, address and occupation of the nominee; (b) whether or not the nominee is engaged or intends to be engaged in the business of slaughtering; (c) whether or not the nominee is a member of the local board of health; (d) the names and addresses of three persons who know his qualifications; (e) whether or not the nominee is familiar with the laws and regulations relative to slaughtering; (f) the qualifications of the nominee for the position.

3. When the blank is returned the references are written to. Each reference is asked to give (a) his name, address and occupation; (b) to state whether or not he is a member of the local board of health; (c) to state whether or not the nominee is in the business of slaughtering or intends to slaughter; (d) to state whether or not the nominee is qualified for the position, and (e) to state the nominee's experience for the position.

4. The office records relating to the nominee are consulted, provided that the nominee had formerly held the position of inspector of slaughtering.

5. If necessary, an inspector of the State Department of Health visits the nominee or other persons and obtains additional information.

6. If necessary, the District Health Officer is consulted relative to the advisability of approving the nomination.

7. The inspector is either approved or disapproved.

The only serious objection to this mode of procedure is that the nominee furnishes his own references, but in several instances these references have given evidence upon which, after investigation, the nominee has been disapproved. This year we have carried out the system as nearly as possible in its entirety. In the future it will not be necessary to go so completely into details in the case of persons who are renominated.

Inspectors of slaughtering are required to submit reports upon the

work performed by them while holding office. Blanks are sent to each inspector upon the first day of January, April, July and October, asking for the number of cattle, calves, sheep and hogs inspected, the number confiscated, the reasons for confiscation and the disposition of the confiscated carcasses. These reports make very interesting statistical studies, and we are now attempting to apply the theory of probability to the returns in order to ascertain the efficiency of the inspector and to assist us in picking out localities which need the attention of our own veterinary inspectors. It is, undoubtedly, a fact that with the possible exception of the milk laws there is no food law violated to such an extent as are the laws relating to slaughtering. Meat from diseased animals and from animals coming to their death other than by slaughter is frequently passed for food purposes by local inspectors of slaughtering. It is fortunate that we cook our meat before eating it.

REVOCATION OF MILK LICENSES.

The law provides that cities shall and towns may appoint inspectors of milk who have certain statutory duties to perform. Local milk inspectors may grant licenses for the sale of milk within their respective cities and towns. If a local inspector refuses or revokes a license the dealer whose license has been refused or revoked has an appeal to the State Department of Health, whose decision shall be final and conclusive. These appeals, of course, must be heard according to the rules of evidence, and the local inspector must be able to prove his case beyond a reasonable doubt. Many local boards expect the State Department to assist in the collection of evidence in these cases, not thinking that in this capacity the Department acts as a judicial board, and the collection of evidence at once makes it a prejudiced department. This is no part of the work of a judicial tribunal. The local inspector must show, first, the reason for the refusal or revocation of the license; second, he must submit sufficient evidence to substantiate the claims; and third, he must show the reasonableness of the rule for the violation of which the license was refused or revoked. There is no doubt that if the license has been revoked for the good of the community, the State Department of Health will support the local authorities, but the local inspector must first prove his case.

REVOCATION OF MILK PERMITS.

The statutes require that all local boards of health shall inspect the dairies where the milk is produced for sale within their cities or towns, and if satisfactory must grant a permit to the owner. The board is

required to inspect the milk as well as the premises upon which the milk is produced and handled. These permits must be given to the dealer as well as to the producer. The board of health is to say what shall constitute a satisfactory inspection of the milk or of the dairy; therefore, each board makes its own standards upon which these inspections are to be judged. These permits are good until revoked, and are, therefore, different from licenses, which are good for one year only. If the board of health revokes a permit it is required to send notice of such revocation to the State Department of Health. Upon receipt of such notice the State Department of Health is required to notify the boards of health of various cities and towns where the milk is liable to be sold, and to notify various dealers who may be liable to sell the milk. After receiving such notice it is illegal for the dealer to sell the milk until he has received a permit from the board of health of a city or town. These permits are distinct from licenses, as they refer to both the producer and the pedler, and as no charge can be made for the permit or for the inspection. In the case of licenses a charge of 50 cents per license is required, and the producer selling less than 20 quarts per day to consumers is exempt.

EXAMINATION OF LIQUOR, ETC., FOR BOARDS OF HEALTH AND OTHER LOCAL AUTHORITIES.

In 1915, through the influence of certain temperance organizations, the Legislature passed an unnecessary law requiring the State Department of Health, at the request of local boards of health, to make analyses of liquor for poisonous drugs or other substances dangerous to health. The law was passed despite the fact that the secretary of the organization asking for legislation and the legislative committee hearing the evidence were informed that all liquor contains poisons and other substances injurious to health, the most prevalent one being that highly toxic substance known as "alcohol." Another toxic substance, called "fusel oil," is always present in distinguishable quantities in high-grade straight distilled liquors and blends and compounds to a much less extent than in straight liquors.

On account of the peculiar wording of this law it is necessary for the State Department of Health to go to the expense of making analyses of samples of liquor submitted by local boards of health. After these analyses are made we report that the sample has been examined and found to contain certain poisonous substances which are always present in distilled liquor.

REGULATIONS RELATIVE TO THE PROTECTION OF FOOD STUFFS.

Boards of health are permitted to make rules and regulations as to the conditions under which all articles of food may be kept for sale or exposed for sale in order to prevent contamination of the food and to protect the public health. Before becoming operative, however, these regulations must be approved by the State Department of Health. It is not infrequent that the State Department of Health is obliged to refuse confirmation of these regulations. One city sent for approval a regulation to the effect that the sale of any article of food containing any preservative substance was prohibited. This was necessarily disapproved, as, without doubt, the inhabitants of the city making the regulation deserved to be permitted to purchase such articles as pickles, jams and jellies, salt pork, ham, bacon, and other articles of food which are commonly made with preservatives. In another instance a local board of health proposed to make a regulation that no consumptive should be employed in the manufacture, sale or handling of food. This regulation failed of approval because it was far too sweeping, and the local board was unwilling to add the words "if in the opinion of the board of health this is necessary for the preservation of the public health."

One can readily see that the enforcement of such a regulation would, in a very short time, solve the tuberculosis problem by starving every consumptive in the town. If this could be made State-wide it might be a good thing, but it was not considered advisable to permit it to be operated in only one town of the State.

This completes the outline of the legal relations between the Food and Drug Division and local boards of health. There are possibilities, however, of other relations which may be mutually advantageous through co-operation.

The State Department of Health operates laboratories containing accurate and expensive apparatus. The State Department of Health employs chemists, physicians, veterinarians and inspectors, all trained persons. All of these men, in addition to their usual training, are experienced in the art of collecting evidence, and are familiar with the operation of the various laws with which they come in contact. All of these men are at the service of local boards of health for making investigations or looking up complaints. If a local board of health appoints a dairy inspector, the State Department of Health will, upon request, furnish one of its staff to instruct him in the inspection of dairies. If a local board of health appoints a milk inspector, the assistant analysts will instruct him in the methods of examining milk, and will give him instructions in the methods of collecting samples.

Many cities and towns have taken advantage of these opportunities as far as dairy inspection is concerned in fact. The only dairy inspection now carried out by this Department is at the request of local boards of health, except in those instances where we have found dirty milk upon a milkman's wagon and for court purposes have inspected the dairy to obtain additional evidence to show how the dirt came in the milk. This Department cannot, of course, examine all the samples which could be submitted by local inspectors as there are not sufficient employees to do the work. The local inspector of milk, with simple apparatus, can ascertain the approximate composition of the milk samples he is examining; then if he brings in the samples suspected of being adulterated the assistant analysts of the Department will be glad to examine them, provided, of course, that the inspector intends to use the analysis for the enforcement of law or for the improvement of the milk supply of his city or town.

Local authorities have several times criticized the food and drug inspectors for not calling upon their local milk inspectors when they came into town for milk samples. The principle reason for failure to do so is that the inspector, in most instances, arrives in town before the local inspector is out of bed, collects his samples and leaves the town before the inspector reaches his office. When the inspector is to stay over night in a town he generally arrives after the local inspector's office is closed and leaves in the morning before the local inspector's office is open. Milk is a perishable article, and must, of course, be brought into the laboratory as soon after collection as possible. Another reason for failure to call upon local inspectors is that in some instances the local inspectors have informed milk dealers of the presence of the State inspector in town, and for these two reasons the food and drug inspectors never call upon a local milk inspector unless there is some specific reason for the call.

This criticism has never been made regarding the cold-storage or veterinary inspectors, as in many instances their duties require them to call upon local boards of health in order to get information. Wherever it is possible, however, to secure the aid of a local inspector in carrying out our work, or to assist the local inspector in carrying out his work, the Department is always ready to co-operate.

It might not be out of place to say a few words at this point about the relation between local boards of health and the food and drug division of the State Department of Health. The right to make and enforce regulations and orders is vested in local boards of health, and with but few exceptions the authority of the State Department of Health is vested only in statute laws, which can be enforced by any

citizen. In fact, all our prosecutions are made by our employees acting in their capacity as citizens and not as officers of the Department. This is not generally known, and local boards of health sometimes take advantage of this lack of knowledge by giving an order to a man saying, "You had better do what I tell you, because if you don't the State Department will come and make you do it." A threat of this sort may increase the efficiency of the local man, but does not tend to popularize the State Department of Health with the victims, especially when the order to be obeyed is a local regulation. Local boards should not call upon the State Department for assistance in enforcing regulations entirely under their own control, unless such requests are only for advice under which to act.

Enforce the laws and regulations under your own control to the best of your ability. Call upon the State Department for advice, for expert assistance and for laboratory service, whenever such action is advisable for the protection of the public health, and remember that the State Department always stands ready to aid you in your work to the best of its ability.

FOOD AND DRUGS.

During the month of August,¹ 1916, samples were collected in 47 cities and towns.

Of the samples collected, 890 were milk, 147 were foods other than milk, and 82 were drugs. There were 15 samples of drugs which were below the requirements of the Pharmacopœia. There was 1 sample of lemon extract found to be adulterated which contained practically no lemon oil. There were 288 samples of milk below standard, of which 25 were skimmed milk not properly labeled, 31 were milk containing added water, and 2 were milk which contained flies.

There were 17 convictions obtained for violation of the laws. The total amount of fines imposed was \$445. For violation of the milk laws, John S. Beatty of Webster, Lewis Cockran of Carlisle, Arthur B. Hammond and Charles A. Robbins, on one count, John H. Hoffman, Charles H. Waters and Charlie Yee of Onset, Carl Hjelm of Hingham, Adolph Lemieux of Salisbury, Charles S. Pike of Andover, Joseph Steele of Provincetown, and Frank Thomas of Norwell were convicted. Messrs. Beatty and Pike appealed their cases. For violation of the food laws, John H. Tarment of Foxborough was convicted

¹ In the August Bulletin statement reading "During the month of August" should read "During the month of July."

on two counts. For violation of the drug laws, Edward R. Gifford of Boston was convicted and appealed his case. For violation of the slaughtering laws, Victor Norstrom and Clinton B. Scott of Rutland were convicted. For violation of the cold-storage laws, Armour & Co. were convicted.

There were 29 confiscations made, the total weight being 13,409 pounds. These consisted of 15 pounds of beef and $78\frac{1}{2}$ pounds of veal. The balance was articles held in cold storage, and consisted of 175 pounds of poultry, 2,769 pounds of meat and 10,372 pounds of fish, the fish to be used for bait, with the exception of 85 pounds.

In accordance with the Acts of 1902, chapter 272, the following is the list of articles of adulterated food collected in original packages or from manufacturers, wholesalers or producers: —

Two samples of skimmed milk not properly labeled, produced by Joseph Steele of Provincetown; 2 samples of skimmed milk not properly labeled, produced by John S. Beatty of Webster; 1 sample of skimmed milk not properly labeled, produced by Augustus George of Salisbury; 1 sample of milk containing added water, produced by Frank Thomas of Norwell; 6 samples of milk containing added water, produced by Daniel W. Robbins of Carlisle; 1 sample of skimmed milk not properly labeled, produced by Abraham Buckley of Millbury; 1 sample of Taylor's pure extract of lemon, put up expressly for Jersey Butter Company, Boston, Mass., contained practically no lemon oil.

RÉSUMÉ OF COMMUNICABLE DISEASES FOR AUGUST, 1916.

Infantile paralysis has overshadowed in interest all other communicable diseases during the month of August. Another striking fact is the sudden drop in the number of cases of measles reported.

Prevalence. — Communicable diseases were reported in slightly greater numbers during August, 1916, than during the same month in 1915. However, there was a marked drop in the total of reported cases of diseases dangerous to the public health as compared with July, 1916. This was due to the sudden cessation of the epidemic of measles, which has been prevalent in the State for some months.

The following figures will be of interest: —

	TOTAL CASES REPORTED.		
	August, 1915.	August, 1916.	July, 1916.
Cases,	2,883	3,142	5,728
Case incidence per 100,000 population,	78.0	85.0	154.5

Measles. — There has been a marked decrease in the number of cases of measles reported during the month. This seems to be the usual phenomenon. During July, 1916, there were 2,713 cases reported, while in the month just closed there were only 595. As compared with August, 1915, this disease was considerably more prevalent this year.

A comparative table follows: —

	TOTAL CASES REPORTED.		
	August, 1915.	August, 1916.	July, 1916.
Cases,	370	595	2,713
Case incidence per 100,000 population,	10.0	16.1	73.3

The following cities and towns have exceeded their endemic index for the month of August: —

[Endemic index signifies the average for five years of reported cases exclusive of epidemics. This index is applied to each city and town for each month for every communicable disease.]

Amherst, ... (1) 8	Malden, ... (3) 13
Cambridge, ... (6) 24	Newton, ... (2) 15
Fitchburg, ... (1) 34	North Adams, ... (1) 60
Lowell, ... (12) 57	Somerville, ... (2) 15
Leominster, ... (1) 15	

Diphtheria. — Diphtheria showed a slight decrease during the month of August as compared with the previous month, and a considerable decrease as compared with August, 1915. Ludlow has had a sharp outbreak of this disease during the month, while the number of cases reported from Fitchburg is well above the average. A comparative table follows: —

	TOTAL CASES REPORTED.		
	August, 1915.	August, 1916.	July, 1916.
Cases,	564	460	495
Case incidence per 100,000 population,	15.3	12.4	13.4

The following cities and towns have exceeded their endemic index for diphtheria: —

Fitchburg, ... (5) 24	Reading, ... (0) 10
Lawrence, ... (3) 10	Watertown, ... (1) 18
Lowell, ... (7) 18	Westfield, ... (0) 7
Ludlow, ... (0) 26	

Whooping Cough. — The number of cases of this disease reported during the month is smaller, both in comparison with August, 1915, and with July of this year. A comparative table follows: —

	TOTAL CASES REPORTED.		
	August, 1915.	August, 1916.	July, 1916.
Cases,	489	387	493
Case incidence per 100,000 population,	13.2	10.5	13.3

The following cities and towns have exceeded their whooping cough endemic index for August: —

Brockton, ... (3) 47	Manchester, ... (1) 10
Haverhill, ... (1) 39	Salem, ... (7) 28

Typhoid Fever. — Typhoid fever has been reported in exactly the same amount during August, 1916, as it was during August, 1915. As compared with July of this year there has been an increase in the number of cases reported from Lynn. A comparative table follows: —

	TOTAL CASES REPORTED.		
	August, 1915.	August, 1916.	July, 1916.
Cases,	265	265	136
Case incidence per 100,000 population,	7.2	7.2	3.7

The following cities and towns have exceeded their endemic index for typhoid fever:⁴—

Beverly, ... (1)	6	Lynn, ... (4)	29
Chelsea, ... (2)	16	Nantucket, ... (1)	6
Fall River, ... (12)	41	North Adams, ... (3)	6
Gloucester, ... (1)	6	Whitman, ... (0)	3
Lowell, ... (8)	17		

Pulmonary Tuberculosis.— There was a decrease in the number of cases reported to this Department during August, both when compared with the same month of last year and July, 1916. The explanation of this decrease is not clear in view of the fact that we have largely increased dispensary facilities. A comparative table follows:—

	TOTAL CASES REPORTED.		
	August, 1915.	August, 1916.	July, 1916.
Cases,	618	589	764
Case incidence per 100,000 population, .	16.7	15.9	20.6

Rare Diseases.— Trachoma was reported from Worcester (1), Cambridge (2), Brockton (1), Fitchburg (1) and Boston (8).

Pellagra was reported from Worcester (1), Springfield (1), Waltham (1), Boston (1) and Westborough (1).

Cerebro-spinal meningitis was reported from Fall River (3), Newton (2) and Boston (1).

Actinomycosis was reported from New Bedford (1).

Septic sore throat was reported from Cambridge (1), Newton (1), Westfield (1), Northborough (1) and Greenfield (1).

Dysentery was reported from Worcester (1), Haverhill (10) (bacillary) and Boston (28).

Tetanus was reported from Wakefield (1), Shelburne (1) and Lowell (1).

Rabies was reported from Walpole (1), requiring antirabic treatment.

Malaria was reported from Barnstable (1), Waltham (2), Watertown (1), Dedham (3), Mansfield (2), Walpole (1) and Boston (1).

Anthrax was reported from Woburn (1) and Peabody (1).

Leprosy was reported from Boston (1).

The following cities and towns reported dog-bite to this Department: Brockton (1), Chelsea (1) and Attleboro (2).

EPIDEMICS.

Anterior Poliomyelitis. — During the month of August there were 257 cases of anterior poliomyelitis reported to this Department. This is a considerable increase over July, during which month there were 107 cases. The distribution of this disease is interesting. While cases have been reported from almost every part of the State, there is a distinct tendency to localization in certain important areas. In the northwestern portion of the Commonwealth there is a group of cases in the Pittsfield-North Adams area and a similar group of cases in the Greenfield-Montague area. Another important area of infection includes Northampton, Holyoke, Springfield, West Springfield and Westfield. In the central part of the State there is not the same tendency to grouping of cases. Worcester has reported 14 cases, but this is not a high incidence when the population is considered. The Metropolitan District, from a comparative standpoint, has had a low incidence of the disease. The latest active focus of infection has localized along the Merrimac River, and includes Amesbury, Haverhill, West Newbury, Lawrence and Lowell. While there are scattering cases in the Cape district, Fall River and New Bedford are remarkably free from the infection.

The reported cases are distributed as follows: Boston, 34; North Adams, 20; Springfield, 17; Amesbury and Pittsfield, 10 each; Somerville, 8; Holyoke, 7; Cambridge, Haverhill and Montague, 6 each; Easthampton, Salem and Worcester, 5 each; Adams, Fitchburg, Lowell, New Bedford, Northampton, Revere, Southbridge and Wareham, 4 each; Bourne, Dudley, Erving, East Longmeadow, Fall River, Hadley, Lawrence, Milton, Newton, Stoughton and Westfield, 3 each; Beverly, Braintree, Charlton, Greenfield, Malden, Medford, Newburyport, Peabody and Uxbridge, 2 each; 1 case each in Abington, Agawam, Barre, Blackstone, Brookline, Canton, Chelsea, Dartmouth, Douglas, Fairhaven, Framingham, Georgetown, Hopedale, Lancaster, Leominster, Lynn, Littleton, Milford, North Brookfield, Norwood, Orleans, Plympton, Reading, Savoy, Southwick, Sturbridge, Taunton, Webster, Whitman, West Boylston, West Springfield and Yarmouth.

Mortality. — There were 39 deaths reported to this Department from anterior poliomyelitis during August. This gives a fatality rate of 15.2 per cent. While the returns of deaths upon which these figures are based are admittedly incomplete, it indicates that the infection is of a moderately virulent nature.

Investigation. — The State district health officers and the epidemiologist, working in co-operation with the local health authorities, are

making a study of all reported cases. The detailed result of these studies will be published later in the year.

Typhoid Fever. — During the closing days of August there was a sharp outbreak of typhoid fever reported from Lynn. The early results of the investigation show that the mode of transmission was undoubtedly milk. All of the cases occurred on a single milk route.

REPORT UPON THE WORK OF THE BACTERIOLOGICAL LABORATORY FOR THE MONTH OF AUGUST, 1916.

The following gives the total number of bacteriological examinations made in the laboratory of the State Department of Health during the month of August, 1916: —

	Number of Examinations.	DIAGNOSIS.		RELEASE.	
		Positive.	Negative.	Positive.	Negative.
Diphtheria, ...	1,049	94	208	70	677

	Number of Examinations.	Positive.	Negative.	*Atypical.
Tuberculosis, ...	239	71	168	
Typhoid fever (Widal test),* . .	312	102	200	10
Typhoid fever (Culture test), . .	30	2	28	
Malaria, ...	12	2	10	
Miscellaneous, ...	167			

Total number of examinations made, 1,809.

The following gives the total number of biological products and diagnostic outfits distributed by the State Department of Health during the month of August, 1916: —

Biological Products.

Diphtheria antitoxin: —

12,000 units (special for the Boston City Hospital), . . .	136 bottles.
6,000 units (special for the Boston City Hospital), . . .	101 bottles.
3,000 units, ...	2,842 bottles.

Diphtheria antitoxin — *Con.*

2,000 units (special for the Boston City Hospital),	24 bottles.
1,800 units (special for the Boston City Hospital),	58 bottles.
1,500 units,	729 bottles.
750 units,	1,253 bottles.

Smallpox vaccine: —

Capillary tubes,	30,523
Bulk,	400

Typhoid vaccine: —

Ampoules,	1,730
Bulk,	700

Antimeningitis serum,	132 bottles.
-----------------------	--------------

Silver nitrate solution,	3,336 ampoules.
--------------------------	-----------------

Diagnostic Outfits.

Culture tubes,	1,215
Culture media,	54
Sputum bottles,	459
Widal outfits,	505
Bile outfits,	106
Malaria-Gonorrhœa outfits,	33

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation estimated as of July 1, 1916. ¹	Total Deaths from All Causes.	63A		19A		9		19B		6	
				Ante- rior Poli- myeli- tis.		Chicken Pox.		Diph- theria.		Ger- man Mea- sles.		Mea- sles.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	Massachusetts, ...	3,779,033	3,809	108	16	218	2	426	35	38	1	2,647	55
2	CITIES OVER 200,000.												
3	Boston, ²	763,529	848	9	3	81	1	137	7	7	-	742	19
4	CITIES, 150,000-200,000.												
5	Worcester, ...	166,735	227	8	1	3	1	27	3	-	1	63	6
6	CITIES, 100,000-150,000.	563,343	692	23	2	19	-	60	8	6	-	486	14
7	Fall River, ...	126,119	159	5	-	9	-	6	1	-	-	24	1
8	New Bedford, ...	112,689	127	10	-	3	-	12	-	-	-	33	2
9	Cambridge, ...	109,785	112	-	-	3	-	23	1	2	-	85	-
10	Lowell, ...	108,385	167	2	-	-	-	11	5	3	-	284	10
11	Springfield, ...	106,365	127	6	2	4	-	8	1	1	-	60	1
12	CITIES, 50,000-100,000.	453,749	428	5	1	17	-	57	6	2	-	207	4
13	Lynn, ...	97,366	89	-	-	2	-	21	1	-	-	2	-
14	Lawrence, ...	91,314	87	2	1	7	-	8	1	-	-	15	1
15	Somerville, ...	89,178	47	1	-	2	-	4	-	1	-	32	2
16	Brookton, ...	63,590	66	-	-	4	-	10	1	-	-	15	-
17	Holyoke, ...	61,562	87	1	-	1	-	2	-	1	-	134	1
18	Haverhill, ...	50,739	52	1	-	1	-	12	2	-	-	9	-
19	CITIES AND TOWNS, 25,000-50,000.	534,149	477	8	2	39	-	59	6	4	-	288	2
20	Malden, ...	49,996	36	1	-	2	-	7	-	-	-	46	-
21	Chelsea, ...	46,078	45	-	-	9	-	4	1	-	-	7	-
22	Newton, ...	43,912	38	1	1	8	-	3	-	-	-	31	-
23	Quincy, ...	42,615	31	1	-	1	-	5	-	-	-	6	-
24	Pittsfield, ...	41,416	47	2	1	2	-	6	2	-	-	-	-
25	Fitchburg, ...	40,093	37	1	-	1	-	12	2	-	-	133	-
26	Everett, ...	38,741	23	-	-	3	-	4	-	1	-	2	-
27	Salem, ...	38,662	42	-	-	-	-	9	-	-	-	8	-
28	Taunton, ...	36,621	50	1	-	1	-	1	1	-	-	1	1
29	Brookline, ...	34,867	20	-	-	2	-	-	-	-	-	-	1
30	Medford, ...	32,286	20	-	-	6	-	2	-	-	-	6	-
31	Chicopee, ...	31,283	53	-	-	-	-	-	-	3	-	40	-
32	Waltham, ...	30,715	25	-	-	4	-	3	-	-	-	5	-
33	Revere, ...	26,859	10	1	-	-	-	3	-	-	-	3	-
34	CITIES AND TOWNS, 10,000-25,000.	547,600	449	33	5	30	-	42	2	5	-	392	2
35	Gloucester, ...	24,497	17	-	-	1	-	-	-	-	-	31	-
36	Beverly, ...	24,001	15	-	-	4	-	-	-	-	-	11	-
37	Northampton, ...	22,191	18	-	-	-	-	-	-	-	-	53	-
38	North Adams, ...	22,039	23	8	3	3	-	-	-	-	-	111	-
39	Peabody, ...	19,327	15	1	1	-	-	4	-	-	-	10	-
40	Attleboro, ...	19,027	16	-	-	-	-	1	-	-	-	11	-
41	Westfield, ...	18,983	24	10	-	5	-	-	-	-	-	4	-
42	Leominster, ...	17,662	12	-	-	2	-	1	-	-	-	33	-
43	Watertown, ...	17,395	12	-	-	-	-	6	-	1	-	13	-
44	Melrose, ...	17,161	15	-	-	-	-	1	1	-	-	1	-
45	Gardner, ...	16,781	24	-	-	-	-	-	-	-	-	-	1
46	Woburn, ...	16,676	10	1	-	-	-	1	-	-	-	-	-
47	Framingham, ...	16,564	14	-	-	2	-	-	-	-	-	10	-
48	Arlington, ...	15,784	9	-	-	-	-	-	-	-	-	4	-
49	Marlborough, ...	15,412	12	2	1	-	-	-	-	-	-	4	-
50	Newburyport, ...	15,398	9	-	-	-	-	1	-	1	-	7	-
51	Methuen, ...	14,625	18	-	-	-	-	-	-	-	-	-	-

¹ With the exception of Salem, the populations have been estimated arithmetically from the 1910 Federal Census and the 1915 State Census. The population of Salem has been estimated from the 1910 Federal Census and the 1905 State Census, owing to the abnormal decrease in 1915, due to the fire.

TO THE PUBLIC HEALTH, JULY, 1916.

19C		38A		7		28		29-35		1		8		61A		176A		4		75A		Line No.
Mumps.		Oph- thalmia Neona- torum.		Scar- let Fever.		Pulmo- nary Tuber- culosis.		Tuber- culosis, Other Forms.		Ty- phoid Fever.		Whoop- ing Cough.		Cere- bro- spinal Menin- gitis.		Dog Bite.		Mala- ria.		Tra- choma.		
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
127	-	200	-	219	3	727	334	73	79	128	7	490	23	13	10	9	-	7	-	7	-	1
43	-	82	-	45	-	218	73	27	22	17	1	119	4	5	4	-	-	-	-	-	-	2
1	-	16	-	1	-	37	13	2	8	3	1	11	1	1	-	-	-	-	-	1	-	3
27	-	34	-	33	-	131	58	16	12	50	1	45	3	2	2	4	-	1	-	4	-	4
2	-	9	-	3	-	43	16	1	3	27	-	20	1	-	-	-	-	-	-	-	-	5
12	-	4	-	10	-	37	8	6	4	13	1	5	1	1	2	-	-	-	-	-	-	6
4	-	11	-	4	-	17	19	3	1	2	-	11	1	1	-	-	-	1	-	-	-	7
-	-	6	-	3	-	17	8	3	2	4	-	-	-	-	-	4	-	-	-	-	-	8
9	-	4	-	13	1	17	7	2	2	4	-	9	-	-	-	-	-	-	-	4	-	9
15	-	28	-	35	1	94	39	13	10	6	-	124	5	1	-	1	-	-	-	-	-	10
1	-	5	-	9	1	16	14	1	1	2	-	3	1	-	-	-	-	-	-	-	-	11
1	-	1	-	1	-	25	9	4	1	3	-	1	-	-	-	-	-	-	-	-	-	12
4	-	7	-	8	-	19	2	3	1	-	-	14	1	-	-	-	-	-	-	1	-	13
9	-	8	-	4	-	18	4	2	3	-	-	84	2	-	-	1	-	-	-	-	-	14
-	-	2	-	7	-	11	8	1	3	-	-	2	-	1	-	-	-	-	-	-	-	15
-	-	5	-	6	-	5	2	2	1	1	-	20	1	-	-	-	-	-	-	-	-	16
10	-	20	-	28	1	95	35	9	9	18	2	62	4	1	2	-	-	5	-	-	-	17
-	-	3	-	3	-	9	1	1	2	2	-	4	-	-	-	-	-	-	-	-	-	18
6	-	3	-	6	-	20	4	-	-	3	1	6	-	-	-	-	-	-	-	-	-	19
-	-	1	-	1	-	4	-	-	-	3	-	7	-	-	-	-	-	2	-	-	-	20
2	-	-	-	9	1	5	3	1	-	1	-	2	-	-	-	-	-	-	-	-	-	21
2	-	1	-	1	-	6	2	-	-	1	-	-	-	-	-	-	-	-	-	-	-	22
-	-	3	-	-	-	8	4	2	-	3	1	10	-	-	1	-	-	-	-	-	-	23
-	-	3	-	-	-	14	5	2	2	-	-	7	-	-	-	-	-	-	-	-	-	24
-	-	1	-	1	-	12	5	2	-	-	-	7	1	-	-	-	-	-	-	-	-	25
-	-	-	-	-	-	7	4	-	2	1	-	-	-	-	-	-	-	-	-	-	-	26
-	-	2	-	4	-	3	2	1	-	-	-	2	-	-	-	-	-	-	-	-	-	27
-	-	1	-	-	-	1	1	-	3	1	-	5	-	-	-	-	-	-	-	-	-	28
-	-	-	-	1	-	4	1	-	-	3	-	9	3	1	1	-	-	-	-	-	-	29
-	-	1	-	-	-	2	3	-	-	-	-	3	-	-	-	-	3	-	-	-	-	30
-	-	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31
9	-	11	-	26	-	73	36	4	7	17	-	48	3	1	-	4	-	-	-	-	-	32
4	-	-	-	-	-	4	2	-	2	-	-	1	-	-	-	-	-	-	-	-	-	33
-	-	-	-	-	-	2	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	34
-	-	3	-	-	-	8	2	-	-	2	-	-	-	-	-	-	-	-	-	-	-	35
-	-	-	-	4	-	2	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	36
-	-	-	-	3	-	6	-	-	-	1	-	5	-	-	-	-	-	-	-	-	-	37
-	-	-	-	-	-	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	38
-	-	1	-	-	-	7	6	-	-	2	-	-	1	-	-	3	-	-	-	-	-	39
3	-	-	-	-	-	4	1	1	1	1	-	2	-	-	-	-	-	-	-	-	-	40
1	-	1	-	-	-	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41
-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	42
-	-	-	-	4	-	1	3	-	1	1	-	-	-	-	-	-	-	-	-	-	-	43
-	-	-	-	1	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44
-	-	-	-	2	-	1	-	-	-	-	-	18	-	-	-	1	-	-	-	-	-	45
-	-	1	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	46
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47
-	-	1	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	48
-	-	-	-	-	-	-	1	-	-	1	-	1	-	-	-	-	-	-	-	-	-	49
-	-	-	-	1	-	3	3	-	-	1	-	-	-	-	-	-	-	-	-	-	-	50
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51

² In previous issues of the Bulletin the footnote has stated that the death returns for Boston were not received at the office of the Secretary of the Commonwealth on certain dates. This note should have stated that the returns were not received in time to tabulate them.

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation estimated as of July 1, 1916.	Total Deaths from All Causes.	63A Ante- rior Polio- myeli- tis.		19A Chicken Pox.		9 Diph- theria.		19B Ger- man Meas- les.		6 Meas- les.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
52	Southbridge, ...	14,605	12	-	-	-	-	1	-	-	-	3	1
53	Weymouth, ...	14,229	9	-	-	-	-	1	-	-	-	-	-
54	Milford, ...	13,836	10	-	-	1	-	1	-	-	-	1	-
55	Winthrop, ...	13,393	14	-	-	4	-	-	-	-	-	2	-
56	Adams, ...	13,264	13	2	-	-	-	2	-	-	-	5	-
57	Clinton, ...	13,220	10	-	-	-	-	-	-	-	-	5	-
58	Greenfield, ...	13,152	9	1	-	1	-	1	-	1	-	2	-
59	Plymouth, ...	13,116	14	1	-	-	-	-	-	-	-	-	-
60	Wakefield, ...	13,114	9	-	-	1	-	2	-	-	-	2	-
61	Webster, ...	12,820	7	3	-	4	-	-	-	1	-	-	-
62	West Springfield, ...	11,850	9	2	-	-	-	4	-	-	-	2	-
63	Norwood, ...	11,693	1	1	-	-	-	1	-	1	-	2	-
64	Danvers, ...	11,601	25	-	-	-	-	-	-	-	-	32	-
65	Dedham, ...	11,468	7	-	-	-	-	-	-	-	-	8	-
66	Natick, ...	11,442	4	-	-	2	-	6	1	-	-	4	-
67	Saugus, ...	10,753	6	-	-	-	-	-	-	-	-	-	-
68	Winchester, ...	10,173	6	-	-	-	-	7	-	-	-	-	-
69	Easthampton, ...	10,164	11	1	-	-	-	1	-	-	-	21	-
70	Athol, ...	10,084	10	-	-	-	-	-	-	-	-	-	-
71	TOWNS, 5,000-10,000.	555,569	326	11	1	9	-	24	2	3	-	240	7
72	TOWNS, 2,500-5,000.	181,118	153	5	-	6	-	14	2	2	-	79	1
73	TOWNS UNDER 2,500.	209,342	209	6	1	14	-	6	-	9	-	150	-

In addition to the above there occurred 15 cases of dysentery, 14 in Boston and 1 in Cambridge, with 2 deaths, 1 in Lawrence and 1 in Chicopee; 4 cases of pellagra, 2 in Boston, 1 in Whitman and 1 in Worcester; 6 cases of septic sore throat, 2 in Boston, 1 in Groveland, 1 in New Bedford, 1 in Springfield and 1 in Williamsburg, with 3 deaths, 2 in Newton and 1 in Dedham; and 3 cases of tetanus, 1 in Fall River, 1 in Lowell and 1 in Weymouth, with 2 deaths, 1 in Milford and 1 in Pittsfield.

TO THE PUBLIC HEALTH — *Concluded.*

19C		38A		7		28		29-35		1		8		61A		176A		4		75A		Line No.
Mumps.		Ophthal- mia Neona- torum.		Scar- let Fever.		Pulmo- nary Tuber- culosis.		Tuber- culosis, Other Forms.		Ty- phoid Fever.		Whoop- ing Cough.		Cere- bro- spinal Mening- itis.		Dog Bite.		Mala- ria.		Tra- choma.		
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52
-	-	-	-	-	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	53
1	-	-	-	1	-	1	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	54
-	-	-	-	-	-	1	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	55
-	-	-	-	-	-	2	2	-	-	4	-	3	-	-	-	-	-	-	-	-	-	56
-	-	-	-	4	-	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57
-	-	2	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	58
-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	59
-	-	2	-	2	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	60
-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	61
-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	62
-	-	-	-	-	-	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64
-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65
-	-	-	-	-	-	3	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	66
-	-	-	-	1	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	67
-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	68
-	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70
9	-	8	-	24	-	55	44	1	7	12	1	36	2	2	1	-	-	1	-	1	-	71
4	-	1	-	11	-	16	8	-	2	3	1	11	1	-	-	-	-	-	-	-	-	72
9	-	-	-	16	-	8	28	1	2	2	-	34	-	-	1	-	-	-	-	-	-	73

MASSACHUSETTS STATE DEPARTMENT OF HEALTH.

Commissioner, ALLAN J. McLAUGHLIN, M.D.

Division of Administration,	. . .	Acting Director, LYMAN A. JONES, M.D.
Division of Sanitary Engineering,	. . .	Director and Chief Engineer, X. H. GOODNOUGH, C.E.
Division of Communicable Diseases,	. . .	Director, E. R. KELLEY, M.D.
Division of Water and Sewage Laboratories,		Director and Chemist, H. W. CLARK.
Division of Biologic Laboratories,	. . .	Director and Pathologist, MILTON J. ROSENAU, M.D.
Division of Food and Drugs,	. . .	Director and Analyst, HERMANN C. LYTHGOE.
Division of Hygiene,		Director, LYMAN A. JONES, M.D.

Public Health Council.

ALLAN J. McLAUGHLIN, M.D., *Chairman.*

WM. T. SEDGWICK, Ph.D.	JOSEPH E. LAMOUREUX, M.D.
GEORGE C. WHIPPLE, S.B.	WM. J. GALLIVAN, M.D.
DAVID L. EDSALL, M.D.	JOHN T. WHEELWRIGHT.

State District Health Officers.

The Southeastern District,	. . .	ADAM S. MacKNIGHT, M.D., Fall River.
The Eastern District,	. . .	MERRILL E. CHAMPION, M.D., Wollaston.
The Northeastern District,	. . .	ARTHUR A. BROWN, M.D., Swampscott.
The North Midland District,	. . .	CHARLES E. SIMPSON, M.D., Lowell.
The South Midland District,	. . .	WILLIAM W. WALCOTT, M.D., Natick.
The Wachusett District,	. . .	FRANCIS A. FINNEGAN, M.D., Fitchburg.
The Connecticut Valley District,	. . .	JOHN S. HITCHCOCK, M.D., Northampton.
The Berkshire District,	. . .	STANLEY H. OSBORN, M.D., North Adams.

PUBLIC HEALTH BULLETIN

ISSUED MONTHLY

BY THE

STATE DEPARTMENT OF HEALTH
OF MASSACHUSETTS



OCTOBER, 1916

Vol. 3, No. 10

ALLAN J. McLAUGHLIN, M.D., *Commissioner*

The Common Health of the Commonwealth

Entered as Second-class Matter Oct. 26, 1914, at the Post Office at Boston, Mass.,
under the Act of Aug. 24, 1912.

CONTENTS.

	PAGE
Tuberculosis in Massachusetts, ...	189
Tuberculosis Survey in Michigan, ...	191
Food and Drugs, ...	192
Résumé of Communicable Diseases for September, 1916, ...	193
Report of the Bacteriological Laboratory, ...	198
New Legislation, ...	199
An Act to authorize Local Boards of Health to prevent the Spread of Infantile Paralysis, so called (General Act, chapter 313), ...	199
Report of Industrial Diseases for September, 1916, ...	199
Cases and Deaths from Diseases Dangerous to the Public Health for Cities and Towns, September, 1916, ...	200
Laboratory Aids for Diagnosis and Treatment of Communicable Diseases, ...	204

TUBERCULOSIS IN MASSACHUSETTS.

THE comparative death rate per 100,000 population from pulmonary tuberculosis for the State, for cities and rural communities from 1905 to 1914, inclusive, is shown in the accompanying chart.

It is gratifying to find that the death rate during these ten years has in every case decreased except in the rural communities, which include the towns with tuberculosis sanatoria.

State. — During the ten years the rate decreased from 156.5 to 113.7 in 1914.

Cities. — In this group of 10 cities of 50,000 population or more, with a total population of 1,699,649, or nearly one-half the population of the State, the decrease in the death rate from tuberculosis was less than that of the entire State, or 33.7 as compared with a decrease of 42.8 for the State.

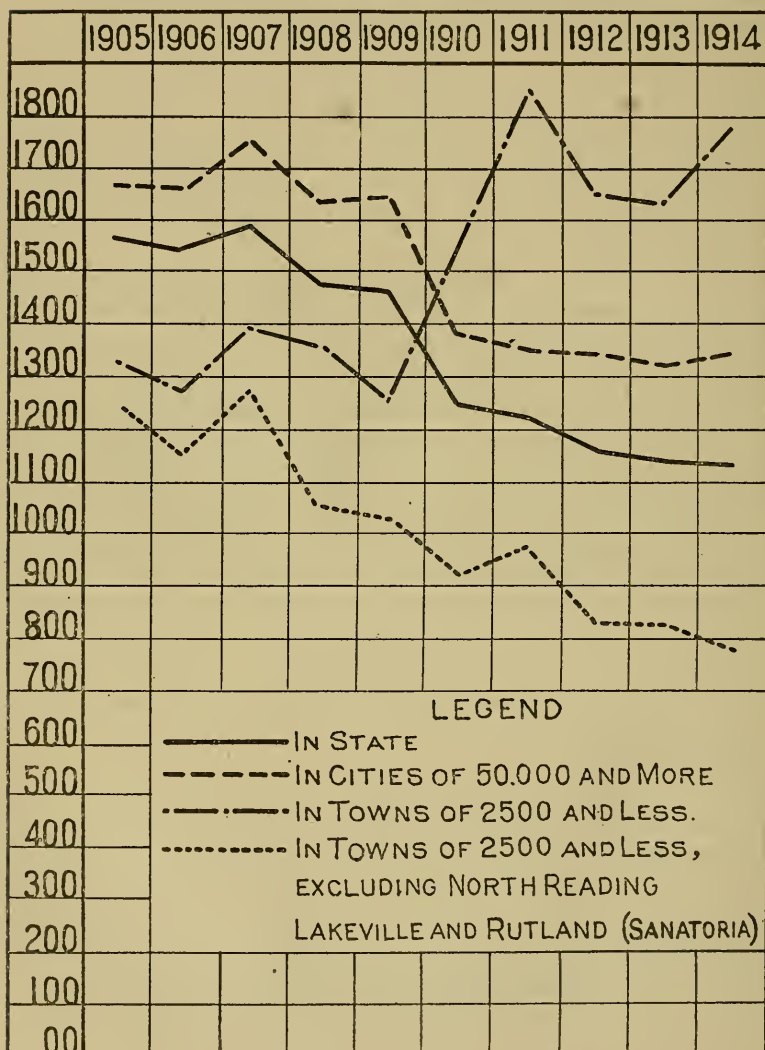
Rural Communities. — In the rural communities, using the definition of this term given by the United States Census Bureau, that is, communities of 2,500 or less, the death rate took a sharp jump upwards in 1910 and 1911. This apparent great increase was caused by the opening of the two new State sanatoria at North Reading and Lakeville. The death rate in these communities, 202 towns with a population of 241,149, or about 7 per cent. of the State, instead of decreasing increased in the ten years 48.0 to 179.1. It is, of course, unfair to give this as the rate in rural communities in view of the facts that nearly all the deaths occurring in State sanatoria in these three towns are of persons coming from places larger than the rural communities, and that the death is charged up not to the real place of residence but to the town in which the patient died. It is to be hoped that some satisfactory method may be devised for handling this class of cases statistically so that the actual conditions in any community will not be misrepresented.

Rural Communities, excluding North Reading, Lakeville and Rutland (State Sanatoria). — The line indicating the rate for communities under 2,500 population, excluding the small towns of Lakeville, North Reading and Rutland, in which State tuberculosis sanatoria are located, shows more accurately the rural community rate, since the deaths from tuberculosis are few of persons living in these towns, affecting the rate almost inappreciably. In spite of the fact that very little work has been done in communities of this size, the actual rate and

TUBERCULOSIS IN MASSACHUSETTS

Statistics compiled from reports of
births, marriages and deaths in Mass.
by the Secretary of the Commonwealth.

DEATH RATE FROM PULMONARY TUBERCULOSIS PER 100,000 POPULATION



the decrease in the death rate from tuberculosis is greater than in the entire State or in cities. The death rate in 1905 was 122.1, and in 1914 it had dropped to 79.2, or 42.9 points.

Tuberculosis is a preventable disease, and while this chart is encouraging, it shows, nevertheless, that there is still much educational work to be done even in the rural communities.

TUBERCULOSIS SURVEY IN MICHIGAN.

IN 1915, in Michigan, the State Legislature voted \$100,000 for an antituberculosis campaign. The work was started by carrying out a tuberculosis survey in various counties successively. Physicians, nurses and trained workers proceeded to the county where work was to be carried on, spending about three weeks in completing the survey.

The first week was devoted to securing information and getting in touch with local physicians and organizations. Nurses visited physicians obtaining lists of prospective families or patients who might be brought for examination later. Newspapers were made acquainted with the work, the pastors of the various churches were interested, school superintendents and teachers were visited, social organizations were sought out, and public meetings held to stimulate interest.

The second week was known as the clinical week. During this week a free dispensary was held daily in some centrally located place from 8 A.M. to 5 P.M. Local physicians were invited to be present and clinical lectures were given. From fifty to seventy-five individuals were examined daily.

The third, or educational, week was given over to addresses concerning tuberculosis, its cause, prevention and cure. The work and importance of city and county health nurses and full-time health officers was pointed out and emphasized. Talks were given to school children on the importance of fresh air, cleanliness, wholesome food and play. Ministers were asked to preach upon the subject of health. During this week, also, nurses visited the homes of those examined at the dispensary to render assistance and give such information as might be desired.

The survey has now been completed in 40 counties. In these counties 11,559 examinations have been made, of which 3,087 proved positive, 2,231 were suspicious and 6,241 were negative.

In 16 counties, for which figures at the moment are available, there were reported previously 1,562 cases of tuberculosis. In these 16

counties the survey disclosed 1,534 positive cases, 1,128 suspicious cases and 3,343 were negative. Thus, the survey revealed almost again as many cases of tuberculosis as were known to the health authorities, in addition to more than a thousand suspicious individuals whose condition was such as to render them especially liable to develop the disease if it was not already present. This latter group would offer special opportunity for effective preventive work.

The population of these 16 counties is 888,764, which gives a rate of 3.48 positive cases per 1,000 population and a rate of 1.15 per 1,000 for suspicious cases, or a combined rate of actual and suspected cases of 4.63 per 1,000 population.

FOOD AND DRUGS.

During the month of September, 1916, samples were collected in 38 cities and towns.

Of the samples collected, 764 were milk, 72 were foods other than milk, and 91 were drugs. There were 16 samples of drugs which were below the requirements of the Pharmacopœia. There were 3 samples of foods found to be adulterated. These consisted of 1 sample of Hamburg steak containing sulphites and not so labeled, and 2 samples of ice cream containing less than 7 per cent. of fat. There were 113 samples of milk below standard, of which 10 were skimmed milk not properly labeled, and 21 were milk containing added water.

There were 8 convictions for violation of the laws. The total amount of fines imposed was \$410. For violation of the milk laws, William O. Jackson of Hardwick, Charles McDonald of Kingston, and Louis Montenari and Vincent Volta of Plymouth were convicted. Messrs. McDonald, Montenari and Volta appealed their cases. For violation of the slaughtering laws, Joseph Cohen of Methuen, Frank H. Taylor and George S. Wadsworth of East Bridgewater, and Lyman S. Wilkins of Middleton were convicted. Messrs. Cohen and Wilkins appealed their cases.

There were 15 confiscations made, the total weight being 39,245 pounds. These consisted of 50 pounds of beef, the balance being articles held in cold storage and consisting of 135 pounds of poultry and 39,060 pounds of fish.

In accordance with the Acts of 1902, chapter 272, the following is the list of articles of adulterated food collected in original packages or from manufacturers, wholesalers or producers:—

One sample of skimmed milk not properly labeled, produced by

Mrs. Margaret Lockwood of Pittsfield; 2 samples of milk containing added water, produced by Charles F. Benz of Pittsfield; 2 samples of skimmed milk not properly labeled, produced by W. A. McLean of Newton; 1 sample of skimmed milk not properly labeled, produced by the Melrose City Farm, Melrose; 2 samples of milk containing added water, produced by Henry J. Penney of Saugus; and 2 samples of milk containing added water, produced by Leonard C. Linscott of Hingham.

RÉSUMÉ OF COMMUNICABLE DISEASES FOR SEPTEMBER, 1916.

Prevalence. — The number of cases of communicable diseases reported to this Department was somewhat in excess of the figures for September, 1915. This was due largely to the increased prevalence of anterior poliomyelitis. The other common communicable diseases, with the exception of diphtheria, have maintained their usual prevalence in the State.

	TOTAL CASES REPORTED.		
	September, 1915.	September, 1916.	August, 1916.
Cases,	2,959	3,234	3,142
Case incidence per 100,000 population, . . .	80.2	85.5	83.2

Measles. — There has been a still further decline in the number of measles cases reported. There are no cities or towns in the Commonwealth which are having an unusual amount of this disease at the present time.

	TOTAL CASES REPORTED.		
	September, 1915.	September, 1916.	August, 1916.
Cases,	156	175	595
Case incidence per 100,000 population, . . .	4.2	4.6	15.7

Diphtheria. — The reduction in the number of reported cases of this disease during September, as compared with the same month of last year, is striking. On account of the fear of infantile paralysis many

of the schools of the Commonwealth are to remain closed. It will be interesting to note whether this has had any real influence upon the number of cases.

	TOTAL CASES REPORTED.		
	September, 1915.	September, 1916.	August, 1916.
Cases,	697	470	460
Case incidence per 100,000 population, . .	18.9	12.4	12.2

While there have been no marked outbreaks of this infection, a number of towns have exceeded their endemic index for the month of September.

Cambridge, ... (14)	29	Ludlow, ... (0)	13
Natick, ... (0)	14	Westfield, ... (1)	10
Fitchburg, ... (3)	23		

Whooping Cough. — There have been no striking features about the whooping cough situation during the month of September. The number of cases has increased slightly over those reported last month, and has remained about the same as September of last year.

	TOTAL CASES REPORTED.		
	September, 1915.	September, 1916.	August, 1916.
Cases,	465	271	387
Case incidence per 100,000 population, . .	12.6	7.2	10.2

The following cities and towns have exceeded their whooping cough endemic index for the month of September: —

Fall River, ... (6)	29	Cambridge, ... (9)	16
Brockton, ... (1)	17	Haverhill, ... (1)	13

Typhoid Fever. — There has been an increase in the number of cases of typhoid fever reported to this Department, both as compared with August of this year and September, 1915. This increase has been due largely to the explosive, milk-borne outbreak in Lynn, which will be described under the head of epidemics. Fall River has shown an un-

usual prevalence of typhoid fever, and North Adams has reported considerably more than the average number of cases.

	TOTAL CASES REPORTED.		
	September, 1915.	September, 1916.	August, 1916
Cases,	322	373	265
Case incidence per 100,000 population, . .	8.7	9.8	7

The following cities and towns have exceeded their typhoid fever endemic index for the month: —

Fall River, ... (18)	53	North Adams, ... (3)	9
Lynn, ... (9)	88		

Scarlet Fever. — The number of scarlet fever cases reported shows an increase when compared with last month and a decrease when compared with the same month of last year. There have been no marked features of the scarlet fever situation. .

	TOTAL CASES REPORTED.		
	September, 1915.	September, 1916.	August, 1916.
Cases,	299	203	178
Case incidence per 100,000 population, . .	8.1	5.4	4.7

The following cities and towns have exceeded their scarlet fever endemic index for September: —

Marion, ... (0)	5	Norwood, ... (0)	6
-----------------------	---	------------------------	---

Pulmonary Tuberculosis. — There are no interesting facts to report about pulmonary tuberculosis for the month. There were practically the same number of cases reported during the month just closed as the same month of last year.

	TOTAL CASES REPORTED.		
	September, 1915.	September, 1916.	August, 1916.
Cases,	610	602	589
Case incidence per 100,000 population, . .	16.5	15.9	18.6

Rare Diseases. — Dysentery was reported from Boston (22), Lexington (1) and Haverhill (3).

Dog bite was reported from Attleboro (1), Brockton (1), Fall River (1), Hull (3) and Lowell (1).

Cerebrospinal meningitis was reported from Boston (7), Lowell (3), Fall River (1), North Adams (1), Greenfield (1), Worcester (1), Everett (1) and Haverhill (1).

Pellagra was reported from Boston (1), Lynn (1) and Worcester (3).

Trachoma was reported from Boston (9), Chelsea (2), Hanson (1) and Lowell (1).

Malaria was reported from Boston (6), Newton (1), North Attleborough (2), Worcester (1), Fall River (1), Everett (1), Dedham (1), Haverhill (1), Cambridge (1), Uxbridge (3) and Chelsea (1).

Tetanus was reported from Nantucket (1) and Worcester (1).

Septic sore throat was reported from Boston (4), Amherst (1) and Taunton (1).

EPIDEMICS.

Anterior Poliomyelitis. — Cases of anterior poliomyelitis continued to be reported from all parts of the State. The number for the month was 626, making a total of 1,016 cases reported to the Department since the 1st of January.

The peculiar distribution of cases noted last month still continues. In the Pittsfield-North Adams area the disease has come to a standstill in Adams and North Adams, while in Pittsfield there has been a gradual increase in cases, with a further center of infection developing in the neighboring town of Dalton. In the Greenfield-Montague area but 2 new cases were reported. No cases were reported from Dudley and Webster, while Worcester reported but 7 cases.

At present there are two important areas of infection, one is in the Connecticut valley with Holyoke and Springfield as a center. In Westfield and Northampton the disease has remained quiescent. The other important area of infection is located in the metropolitan district, which last month had a low incidence of the disease. During July and August Boston reported but 8 cases, while in September the number increased to 172, and many of the surrounding communities also began to report cases.

The infection along the Merrimac River, mentioned in last month's summary, has continued active, and has extended to North Andover, Boxford, Georgetown, Newbury and Salisbury.

The September reports were as follows: Boston, 172; Holyoke, 59; Springfield, 39; Pittsfield, 32; Malden, 18; Cambridge, 14; Newburyport, 13; Quincy, 12; Somerville and Everett, 10 each; Amesbury,

Lynn, Medford, 9 each; Beverly, Chicopee, North Adams, Revere, 8 each; Worcester, 7; Adams, Auburn, Braintree, Chelsea, Dalton, Dedham, Haverhill, Lowell, Newton, South Hadley and Warren, 5 each; 4 cases each in Brookline, Milton and West Springfield; 3 cases each in Belmont, East Bridgewater, Fall River, Leominster, Milford, Weymouth and Winchester; 2 cases each in Billerica, Blackstone, Boxford, Brockton, Danvers, Fitchburg, Hamilton, Ludlow, Melrose, Monson, Newbury, North Attleborough, Saugus, Tisbury, Waltham, West Newbury, Winthrop and Woburn; 1 case each in Agawam, Barnstable, Bernardston, Bourne, Bridgewater, Conway, Dover, Foxborough, Framingham, Gloucester, Great Barrington, Greenfield, Hadley, Hudson, Hull, Leicester, Lexington, Lunenburg, Mount Washington, Mansfield, Marblehead, Marlborough, Methuen, Middleton, Nahant, Nantucket, North Andover, North Reading, Northampton, Norwood, Otis, Oxford, Palmer, Plainville, Princeton, Rockland, Rockport, Salem, Southbridge, Southwick, Stockbridge, Stoneham, Stoughton, Swampscott, Taunton, Tewksbury, Wakefield, Watertown, Wellesley, Westfield, Westford, Westminster, Weston and Williamsburg.

Characteristics. — Up to the present time the cases of anterior poliomyelitis have continued to affect the usual age group. The majority of the cases are under ten years of age. This characteristic is one of the most constant features of the disease. Any theory that will explain this infection must satisfactorily explain the constancy with which this age group of the population is attacked.

Mortality. — From the incomplete records received by this Department, the anterior poliomyelitis fatality rate for September was higher than for August. There were 626 cases reported, with 136 deaths, giving a fatality rate of 21.6 as compared with the fatality rate of 15.2 for August. A more detailed analysis of these rates will be made when the final and complete figures are received from the Secretary of State's office.

Typhoid Fever. — From August 28 to the end of September, 114 cases of typhoid fever were reported from Lynn, all of which occurred on the routes of a single milk dealer. The sale of this milk was promptly forbidden, and careful investigation, still in progress, was carried out to determine the source of the infection.

In the meantime, after installing a modern pasteurizing plant, the dealer has resumed the sale of milk.

A detailed report of the outbreak will be printed later.

REPORT UPON THE WORK OF THE BACTERIOLOGICAL LABORATORY FOR THE MONTH OF SEPTEMBER, 1916.

The following gives the total number of bacteriological examinations made in the laboratory of the State Department of Health during the month of September, 1916:—

	Number of Examinations.	DIAGNOSIS.		RELEASE.	
		Positive.	Negative.	Positive.	Negative.
Diphtheria, ...	804	104	218	104	378

	Number of Examinations.	Positive.	Negative.	*Atypical.
Tuberculosis, ...	264	58	206	
*Typhoid fever (Widal test), ...	385	137	219	29
Typhoid fever (culture test), ...	48	4	44	
Malaria, ...	17	6	11	
Miscellaneous, ...	135			

Total number of examinations made, 1,653.

The following gives the total number of biological products and diagnostic outfits distributed by the State Department of Health during the month of September, 1916:—

Biological Products.

Diphtheria antitoxin:—

12,000 units (special for the Boston City Hospital), ...	75 bottles.
3,000 units, ...	1,943 bottles.
1,500 units, ...	634 bottles.
750 units, ...	286 bottles.

Smallpox vaccine:—

Capillary tubes, ...	23,257
Bulk, ...	400

Typhoid vaccine:—

Ampoules, ...	1,481
Bulk, ...	600

Antimenigitis serum, ... 162 bottles.

Silver nitrate solution, ... 2,488 ampoules.

Diagnostic Outfits.

Culture tubes, ...	679
Culture media, ...	36
Sputum bottles, ...	279
Widal outfits, ...	459
Bile outfits, ...	68
Malaria-Gonorrhœa outfits, ...	19

NEW LEGISLATION.

GENERAL ACTS, CHAPTER 313.

AN ACT TO AUTHORIZE LOCAL BOARDS OF HEALTH TO PREVENT THE SPREAD OF
INFANTILE PARALYSIS, SO-CALLED.

Be it enacted, etc., as follows:

SECTION 1. Boards of health in cities and towns or the selectmen in towns having no board of health, may make such rules and regulations as are necessary and proper to check the spread of the disease known as infantile paralysis, and to cause its eradication, by quarantine or otherwise. It shall be the duty of the said boards of health or selectmen to notify forthwith the state department of health of any such rule or regulation made by them.

SECTION 2. The state department of health shall have the power to revoke or revise any rule or regulation made under the provisions of section one which it may deem unnecessary or unreasonable, and no rule or regulation made under the provisions of this act shall have any force or effect after the fifteenth day of January in the year nineteen hundred and seventeen.

SECTION 3. This act shall take effect upon its passage.

REPORT OF INDUSTRIAL DISEASES FOR THE MONTH OF SEPTEMBER,
SUBMITTED THROUGH THE COURTESY OF THE STATE BOARD OF
LABOR AND INDUSTRIES.

ADDRESS.	Disease.	Occupation.	Sex.	Age.	Color.
Malden, ...	Lead poisoning, ...	House painter, ...	M	25	W
Boston, Salem Street, ...	Lead poisoning, ...	House painter, ...	M	26	W
Boston, ...	Lead poisoning, ...	Woodworker, ...	M	-	W
Chelsea, ...	Lead poisoning, ...	House painter, ...	M	24	W
Boston, India Wharf, ...	Lead poisoning, ...	Refiner in metal foundry, ...	M	60	W
Dorchester, ...	Lead poisoning, ...	House painter, ...	M	25	W
Quincy, ...	Lead poisoning, ...	Lead worker, ...	M	24	W
Charlestown, ...	Lead poisoning, ...	Plumber, ...	M	42	W
Revere, ...	Lead poisoning, ...	Calender operator, ...	M	34	W
Harvard, ...	Lead poisoning, ...	Farmer, ...	M	53	W
East Boston, ...	Lead poisoning, ...	House painter, ...	M	30	W
Charlestown, ...	Lead poisoning, ...	Plumber, ...	M	28	W
Peabody, ...	Anthrax, ...	Hide sorter, ...	M	21	W

Cases of lead poisoning, 12; cases of anthrax, 1; total number of cases, 13.

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation estimated as of July 1, 1916.	Total Deaths from All Causes.	63A		19A		9		19B		6	
				Ante- rior Polio- myeli- tis.	Chicken Pox.	Diph- theria.	Ger- man Mea- sles.	Mea- sles.					
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	Massachusetts, ...	3,779,033	4,180	253	66	54	-	441	25	11	-	565	30
2	CITIES OVER 200,000.												
3	Boston, ...	763,529	1002	34	17	23	-	108	5	5	-	114	11
4	CITIES, 150,000-200,000.												
5	Worcester, ...	166,735	186	5	1	-	-	22	1	-	-	12	4
6	CITIES, 100,000-150,000.	563,343	793	34	8	3	-	54	6	2	-	108	9
7	Fall River, ...	126,119	218	3	1	2	-	5	-	-	-	7	2
8	New Bedford, ...	112,689	169	4	1	-	-	6	1	-	-	16	1
9	Cambridge, ...	109,785	100	6	-	1	-	16	1	-	-	24	-
10	Lowell, ...	103,385	167	4	1	-	-	18	3	1	-	57	5
11	Springfield, ...	106,365	139	17	5	-	-	9	1	1	-	4	1
12	CITIES, 50,000-100,000.	453,749	406	25	7	6	-	37	2	-	-	47	1
13	Lynn, ...	97,366	79	1	1	2	-	12	1	-	-	-	-
14	Lawrence, ...	91,314	108	3	1	1	-	10	1	-	-	-	1
15	Somerville, ...	89,178	63	8	3	-	-	2	-	-	-	15	-
16	Brockton, ...	63,590	44	-	-	1	-	4	-	-	-	2	-
17	Holyoke, ...	61,562	80	7	1	-	-	5	-	-	-	29	-
18	Haverhill, ...	50,739	62	6	1	2	-	4	-	-	-	1	-
19	CITIES AND TOWNS, 25,000-50,000.	534,149	463	32	7	6	-	67	4	2	-	75	-
20	Malden, ...	49,996	32	2	-	-	-	13	-	-	-	13	-
21	Chelsea, ...	46,078	63	1	-	1	-	2	1	-	-	-	-
22	Newton, ...	43,912	29	3	1	-	-	1	-	-	-	15	-
23	Quincy, ...	42,615	21	-	-	-	-	1	-	-	-	4	-
24	Pittsfield, ...	41,416	55	10	3	-	-	1	-	-	-	-	-
25	Fitchburg, ...	40,098	35	4	-	-	-	24	2	-	-	34	-
26	Everett, ...	38,741	21	-	-	-	-	4	-	-	-	1	-
27	Salem, ...	38,662	39	5	-	4	-	9	-	-	-	1	-
28	Taunton, ...	36,621	69	1	-	-	-	-	-	-	-	1	-
29	Brookline, ...	34,867	15	1	1	-	-	-	-	1	-	-	-
30	Medford, ...	32,286	20	2	2	-	-	2	1	-	-	1	-
31	Chicopee, ...	31,283	35	-	-	-	-	5	-	1	-	2	-
32	Waltham, ...	30,715	17	-	-	1	-	3	-	-	-	2	-
33	Revere, ...	26,859	17	3	-	-	-	2	-	-	-	1	-
34	CITIES AND TOWNS, 10,000-25,000.	547,500	538	54	16	6	-	67	4	1	-	120	3
35	Gloucester, ...	24,497	32	-	-	-	-	2	-	-	-	-	-
36	Beverly, ...	24,001	17	2	-	1	-	7	-	-	-	7	-
37	Northampton, ...	22,191	42	4	1	-	-	-	-	-	-	15	-
38	North Adams, ...	22,039	44	20	10	-	-	-	-	-	-	60	1
39	Peabody, ...	19,327	13	2	-	1	-	-	-	-	-	-	-
40	Attleboro, ...	19,027	24	-	-	-	-	2	-	-	-	3	-
41	Westfield, ...	18,983	24	3	1	-	-	7	2	-	-	1	-
42	Leominster, ...	17,662	13	1	-	-	-	-	-	-	-	15	1
43	Watertown, ...	17,395	13	-	-	1	-	18	-	-	-	3	-
44	Melrose, ...	17,161	16	-	-	-	-	1	-	-	-	-	-
45	Gardner, ...	16,781	15	-	-	-	-	1	-	-	-	1	-
46	Woburn, ...	16,676	16	-	-	-	-	3	-	-	-	-	-
47	Frammingham, ...	16,564	26	1	-	-	-	-	-	-	-	1	-
48	Arlington, ...	15,784	14	-	-	-	-	-	-	-	-	-	-
49	Marlborough, ...	15,412	15	-	-	-	-	6	1	-	-	1	-
50	Newburyport, ...	15,398	10	2	1	-	-	-	-	-	-	1	-
51	Methuen, ...	14,625	20	-	-	-	-	-	-	-	-	-	-

TO THE PUBLIC HEALTH, AUGUST, 1916.

19C		38A		7		28		29-35		1		8		61A		14		4		75A		Lie No.
Mumps.		Ophthal- mia Neona- torum.		Scar- let Fever.		Pulmo- nary Tuber- culosis.		Tuber- culosis, Other Forms.		Ty- phoid Feter.		Whoop- ing Cough.		Cere- bro- spinal Menin- gitis.		Dysen- tery.		Mala- ria.		Tra- choma		
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
49	-	162	-	157	2	585	318	46	69	268	15	399	21	6	5	28	-	12	-	10	-	1
24	-	47	-	23	-	198	86	5	21	15	2	113	4	1	1	17	-	2	-	5	-	2
-	-	10	-	6	-	24	13	2	7	9	2	9	-	-	-	1	-	-	-	1	-	3
6	-	32	-	23	1	113	40	10	11	74	3	39	6	3	1	-	-	-	-	2	-	4
-	-	6	-	4	-	26	14	1	5	41	3	17	3	3	1	-	-	-	-	-	-	5
3	-	6	-	5	-	28	9	6	2	4	-	7	-	-	-	-	-	-	-	-	-	6
1	-	5	-	4	-	23	8	1	2	4	-	10	-	-	-	-	-	-	-	2	-	7
2	-	11	-	4	1	16	5	2	2	17	-	3	3	-	-	-	-	-	-	-	-	8
-	-	4	-	6	-	20	4	-	-	8	-	2	-	-	-	-	-	-	-	-	-	9
2	-	27	-	14	-	58	35	11	7	50	2	96	2	-	-	10	-	-	-	1	-	10
-	-	8	-	6	-	13	8	3	1	29	-	2	-	-	-	-	-	-	-	-	-	11
-	-	2	-	2	-	10	11	5	1	11	1	1	1	-	-	-	-	-	-	-	-	12
-	-	2	-	1	-	8	8	2	1	7	-	6	1	-	-	-	-	-	-	-	-	13
2	-	3	-	1	-	7	2	-	-	1	-	47	-	-	-	-	-	-	-	1	-	14
-	-	-	-	4	-	12	2	-	-	3	-	1	-	-	-	-	-	-	-	-	-	15
-	-	12	-	-	-	8	4	1	1	2	-	39	-	-	-	10	-	-	-	-	-	16
8	-	26	-	15	-	39	32	7	6	36	2	67	5	2	1	-	-	2	-	1	-	17
-	-	4	-	1	-	12	2	-	-	1	-	1	-	-	-	-	-	-	-	-	-	18
1	-	10	-	-	-	9	3	-	-	10	1	3	1	-	-	-	-	-	-	-	-	19
-	-	1	-	-	-	6	1	-	1	6	-	5	-	2	1	-	-	-	-	-	-	20
-	-	-	-	2	-	6	4	-	-	2	-	4	-	-	-	-	-	-	-	-	-	21
1	-	1	-	2	-	9	2	1	-	3	-	1	1	-	-	-	-	-	-	-	-	22
-	-	2	-	-	-	8	2	2	-	3	1	1	1	-	-	-	-	-	-	-	-	23
1	-	2	-	1	-	6	2	2	1	1	-	2	-	-	-	-	-	-	-	1	-	24
-	-	4	-	2	-	9	5	1	1	-	-	23	-	-	-	-	-	-	-	-	-	25
2	-	-	-	-	-	5	3	-	-	2	-	8	1	-	-	-	-	-	-	-	-	26
1	-	-	-	3	-	6	-	-	-	1	-	3	-	-	-	-	-	-	-	-	-	27
1	-	-	-	-	-	4	-	-	1	1	-	1	-	-	-	-	-	-	-	-	-	28
1	-	1	-	2	-	3	6	1	2	3	-	4	1	-	-	-	-	-	-	-	-	29
-	-	-	-	2	-	2	1	-	-	2	-	7	-	-	-	-	-	-	-	-	-	30
-	-	1	-	-	-	4	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	31
-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32
2	-	10	-	45	-	59	30	4	5	46	1	26	3	-	1	-	-	4	-	-	-	33
-	-	-	-	2	-	3	2	-	1	6	-	-	-	-	-	-	-	-	-	-	-	34
1	-	1	-	-	-	5	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	35
-	-	-	-	-	-	12	4	-	-	2	-	3	-	-	-	-	-	-	-	-	-	36
-	-	-	-	4	-	5	2	-	-	6	-	1	-	-	-	-	-	-	-	-	-	37
-	-	-	-	1	-	2	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	38
-	-	1	-	2	-	1	2	1	-	3	-	-	-	-	-	-	-	-	-	-	-	39
-	-	-	-	6	-	2	1	-	-	2	1	2	-	-	-	-	-	-	-	-	-	40
-	-	-	-	2	-	3	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	41
-	-	1	-	2	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	42
-	-	1	-	1	-	4	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43
-	-	1	-	1	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	44
-	-	-	-	4	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45
-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	46
1	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48
-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49
-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation estimated as of July 1, 1916.	Total Deaths from All Causes.	63A		19A		9		19B		6	
				Ante- rior Poli- myeli- tis.		Chicken Pox.		Diph- theria.		Ger- man Mea- sles.		Mea- sles.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
52	Southbridge, ...	14,605	6	4	-	-	-	1	-	-	-	-	-
53	Weymouth, ...	14,229	14	-	-	-	-	2	-	-	-	-	-
54	Milford, ...	13,836	11	1	-	-	-	2	-	-	-	-	-
55	Winthrop, ...	13,393	12	-	-	1	-	-	-	-	-	1	-
56	Adams, ...	13,264	16	4	-	-	-	1	-	-	-	6	-
57	Clinton, ...	13,220	12	-	-	-	-	1	-	-	-	-	-
58	Greenfield, ...	13,152	9	2	1	-	-	-	-	-	-	-	-
59	Plymouth, ...	13,116	11	-	-	-	-	-	-	-	-	-	-
60	Wakefield, ...	13,114	5	-	-	-	-	-	-	-	-	-	-
61	Webster, ...	12,820	11	1	-	-	-	1	-	-	-	-	-
62	West Springfield, ...	11,850	8	1	-	-	-	3	1	-	-	-	-
63	Norwood, ...	11,693	12	1	-	1	-	1	-	1	-	-	-
64	Danvers, ...	11,601	16	-	-	-	-	-	-	-	-	1	-
65	Dedham, ...	11,468	8	-	-	-	-	-	-	-	-	2	-
66	Natick, ...	11,442	9	-	-	1	-	3	-	-	-	-	-
67	Saugus, ...	10,753	6	-	-	-	-	-	-	-	-	-	-
68	Winchester, ...	10,173	4	-	-	-	-	2	-	-	-	-	-
69	Easthampton, ...	10,164	8	5	2	-	-	-	-	-	-	3	-
70	Athol, ...	10,084	8	-	-	-	-	2	-	-	-	-	-
71	TOWNS, 5,000-10,000.	555,569	374	35	3	3	-	62	2	1	-	54	1
72	TOWNS, 2,500-5,000.	185,118	175	16	3	1	-	13	-	-	-	10	1
73	TOWNS UNDER 2,500.	209,342	238	18	4	6	-	12	1	-	-	25	-

In addition to the above there occurred 1 case of actinomycosis in New Bedford; 2 cases of anthrax, 1 in Peabody and 1 in Woburn; 6 cases of dog bite, 2 in Attleboro, 1 in Boston, 1 in Brockton, 1 in Chelsea and 1 in Walpole; 1 case of leprosy in Boston, and 1 death from leprosy in Gosnold; 5 cases of pellagra, 1 in Boston, 1 in Springfield, 1 in Waltham, 1 in Westborough and 1 in Worcester, with 3 deaths, 1 in Danvers, 1 in Northampton and 1 in Springfield; 5 cases of septic sore throat, 1 in Cambridge, 1 in Greenfield, 1 in Newton, 1 in Northborough and 1 in Westfield, and 1 death in Haverhill; and 3 cases of tetanus, 1 in Lowell, 1 in Shelburne and 1 in Wakefield, and 2 deaths, 1 in Lowell and 1 in Shelburne.

LABORATORY AIDS FOR DIAGNOSIS AND TREATMENT OF COMMUNICABLE DISEASES.

The State Department of Health maintains, as a part of its regular work, bacteriological and biological laboratories to aid in the control and prevention of communicable diseases. The facilities of these laboratories and certain supplies furnished by them are available to physicians for the free use of residents of the Commonwealth. Upon requisition these supplies are sent to local boards of health from whom physicians may obtain them as required.

The following supplies are available: —

Diphtheria antitoxin, 3 sizes: 3,000, 1,500 and 750 units.
 Antityphoid vaccine (3 ampoules in each set).
 Smallpox vaccine.
 Antimeningitis serum.
 Antirabic treatment (secured by special arrangement in each case through District Health Officers).
 Outfits for diphtheria cultures.
 Outfits for Widal tests (typhoid fever).
 Outfits for bile tests (typhoid fever).
 Schick tests for determining diphtheria immunity (material on application to District Health Officers).
 Outfits for prevention of ophthalmia (silver nitrate in wax ampoules).
 Outfits for sputum.

The following examinations are made at the laboratories, the specimens being sent to the laboratories by the physicians in attendance: —

At Bacteriological Laboratory, Room 527, State House, for diagnosis of typhoid fever: —

Bile culture test, blood (of value only in first five days).
 Widal test, blood (rarely positive before fifth day).
 Bile culture test, stools, urine (probable carrier cases chiefly).
 Sputum for tubercle bacilli (consumption).
 Pus smears for gonococci.
 Blood smears for malaria.
 Throat and nose cultures for diphtheria.

At Wassermann Laboratory, Harvard Medical School, Longwood Avenue, Boston, Wassermann test for syphilis: —

Specimens are received in Wassermann Laboratory when submitted by direction of the District Health Officers or local boards of health. Patients are also bled at the laboratory on Tuesdays and Thursdays from 3 to 5 P.M. There is no charge for this class of work.

In addition to the above work examinations are made for rabies, glanders and anthrax for the Department of Animal Industry. Specimens to receive attention must be submitted through direction of the Department of Animal Industry.

MASSACHUSETTS STATE DEPARTMENT OF HEALTH.

Commissioner, ALLAN J. McLAUGHLIN, M.D.

Division of Administration,	. . .	Acting Director, LYMAN A. JONES, M.D.
Division of Sanitary Engineering,	. . .	Director and Chief Engineer, X. H. GOODNOUGH, C.E.
Division of Communicable Diseases,	. . .	Director, E. R. KELLEY, M.D.
Division of Water and Sewage Laboratories,	. . .	Director and Chemist, H. W. CLARK.
Division of Biologic Laboratories,	. . .	Director and Pathologist, MILTON J. ROSENAU, M.D.
Division of Food and Drugs,	. . .	Director and Analyst, HERMANN C. LYTHGOE.
Division of Hygiene,	. . .	Director, LYMAN A. JONES, M.D.

Public Health Council.

ALLAN J. McLAUGHLIN, M.D., *Chairman.*

WM. T. SEDGWICK, Ph.D.	JOSEPH E. LAMOUREUX, M.D.
GEORGE C. WHIPPLE, S.B.	WM. J. GALLIVAN, M.D.
DAVID L. EDSALL, M.D.	JOHN T. WHEELWRIGHT.

State District Health Officers.

The Southeastern District,	. . .	ADAM S. MACKNIGHT, M.D., Fall River.
The Eastern District,	. . .	MERRILL E. CHAMPION, M.D., Wollaston.
The Northeastern District,	. . .	ARTHUR A. BROWN, M.D., Swampscott.
The North Midland District,	. . .	CHARLES E. SIMPSON, M.D., Lowell.
The South Midland District,	. . .	WILLIAM W. WALCOTT, M.D., Natick.
The Wachusett District,	. . .	FRANCIS A. FINNEGAN, M.D., Fitchburg.
The Connecticut Valley District,	. . .	JOHN S. HITCHCOCK, M.D., Northampton.
The Berkshire District,	. . .	STANLEY H. OSBORN, M.D., North Adams.

PUBLIC HEALTH BULLETIN

ISSUED MONTHLY
BY THE
STATE DEPARTMENT OF HEALTH
OF MASSACHUSETTS



NOVEMBER, 1916

Vol. 3, No. 11

ALLAN J. McLAUGHLIN, M.D., *Commissioner*

The Common Health of the Commonwealth

Entered as Second-class Matter Oct. 26, 1914, at the Post Office at Boston, Mass.
under the Act of Aug. 24, 1912.

CONTENTS.

	PAGE
Report of Special Committee on Anterior Poliomyelitis, at Cincinnati Meeting of American Public Health Association, October, 1916, ...	209
Opinion of the Attorney-General on Certain Questions relating to Vaccination, ...	211
Food and Drugs, ...	214
Quarterly Report on Inspection of Slaughtering, ...	215
Quarterly Report on Cold Storage, ...	215
New Legislation, ...	216
An Act relative to the Production and Sale of Milk (General Act, Chapter 228),	
Résumé of Communicable Diseases for October, 1916, ...	216
Report of the Bacteriological Laboratory, ...	219
Report of Industrial Diseases for October, 1916, ...	221
Cases and Deaths from Diseases Dangerous to the Public Health for Cities and Towns, September, 1916, ...	222

NOTE.

In the October bulletin, page 190, decimal points should appear between ciphers in vertical column of figures showing Death Rate from Pulmonary Tuberculosis per 100,000 Population, so that figures will read 0.0 to 180.0.

REPORT OF SPECIAL COMMITTEE ON ANTE- RIOR POLIOMYELITIS.

ON the first day of the recent Cincinnati meetings of the American Public Health Association the following preamble and resolution was presented and unanimously approved: —

In view of the fact that infantile paralysis has existed for several months and still exists in the United States and Canada, taking on in some localities an epidemic character; that considerable anxiety is expressed by the public generally; and that they, the public, the physicians and the health authorities may well expect an authoritative statement upon the subject from this association in annual convention assembled; be it

Resolved, That the president be forthwith authorized to appoint a small committee of specialists and of those who have had experience of the disease, with instructions to meet immediately and to prepare a report of the present actual knowledge of the cause of the disease, the manner and agents by which it is spread, the best methods of treatment, and the best preventive measures;

And that this committee submit its report before the close of this annual meeting; and that such report be given to the public immediately.

In accordance with the above resolution, the president, John F. Anderson, appointed the following special committee: Dr. Haven Emerson, Commissioner of Health, New York City; Dr. Wade Frost, United States Public Health Service, Cincinnati, Ohio; Dr. A. J. Chesley, Epidemiologist, Minnesota State Board of Health, Minneapolis, Minn. The report of this committee follows.

The Committee of the American Public Health Association, appointed by the president to report upon the subject of poliomyelitis, begs to submit the following: —

The specific cause of poliomyelitis is a micro-organism, a so-called virus, which may be positively identified at present only by its production of poliomyelitis in monkeys experimentally inoculated. Such experiments have shown this virus to be present not only in the nervous tissues and certain other organs of persons who have died of poliomyelitis, but also in the nose, mouth and bowel discharges of patients suffering from the disease. It has been proved by similar experiments that healthy associates of poliomyelitis cases may harbor the virus in their noses and throats.

These experiments, together with the fact that monkeys have been infected by direct application of the virus to the mucous membrane of the nose and by feeding of the virus, are strong evidence that in nature infection may be directly spread from person to person.

Observations on the occurrence of the disease might seem at first thought to be inconsistent with this conception, since contact between recognized cases can seldom be traced. However, this may be adequately explained by the lack of means for detecting mild non-paralytic cases, and by the belief that healthy carriers of the virus and undetected cases are considerably more numerous than frankly paralyzed cases.

Many facts, such as the occasional incidence and rural prevalence of the disease, have seemed to indicate that some insect or animal host, as yet unrecognized, may be a necessary factor in the spread of poliomyelitis, but specific evidence to this effect is lacking, and the weight of present opinion inclines to the view that poliomyelitis is exclusively a human disease, and is spread by personal contact, whatever other causes may be found to contribute to its spread. In personal contact we mean to include all the usual opportunities, direct or indirect, immediate or intermediate, for the transference of body discharges from person to person, having in mind as a possibility that the infection may occur through contaminated food.

The incubation period has not been definitely established in human beings. The information at hand indicates that it is less than two weeks, and probably in the great majority of cases between three and eight days.

If the foregoing conception of the disease is correct it is obvious that effective preventive measures, approaching complete control, are impracticable because isolation of recognized cases of the disease and restraint upon their immediate associates must fail to prevent the spread of infection by unrecognized cases and carriers.

These difficulties would appear to be inherent in the nature of the disease. Nevertheless, we may hope for the development of more thorough knowledge which will permit of more effective control of the disease than is now practicable. Of first importance is the more general recognition by practitioners of non-paralytic cases through clinical observations and laboratory procedures.

Lumbar puncture has been shown to offer valuable aid in diagnosis, and a more general use of this test is to be encouraged, since it not only facilitates accurate and early diagnosis, but in many cases affords symptomatic relief as a therapeutic procedure. Without undertaking to predict the future progress of research we may hope for certain possible developments which may afford far more effective control of the disease, with substantial relief from many inconveniences at present inevitable. Among these possibilities we would include a practical test for the detection of all clinical types and carriers; a simple and reliable test for distinguishing between susceptible and insusceptible persons; and means of conferring artificial immunity against poliomyelitis.

At present our information demands the employment of the following administrative procedures in attempting to control the disease: —

1. The requirement that all recognized and suspected cases be promptly reported.
2. The isolation of patients in screened premises. The duration of infectivity being unknown, the period of isolation must necessarily be arbitrary. Six weeks has been recommended by the Conference of State and Territorial

Health Officers with the Surgeon-General of the Public Health Service as sufficient, and this period has been generally accepted throughout the United States.

3. Disinfection of all body discharges.

4. Restriction of the movements of intimate associates of the patient so far as practicable. This should include at least exclusion of the children of the family from schools and other gatherings.

5. Protection of children so far as possible from contact with other children or with the general public during epidemics.

6. Observation of contacts for two weeks after the last exposure.

There is no specific treatment of established value in poliomyelitis. During the persistence of the acute symptoms of the disease the important principles of treatment are rest in bed, symptomatic relief and passive support for the prevention of deformities. Active measures during this stage are not only useless but are apt to cause serious and often permanent injury. Hospitalization of patients where possible is to be encouraged. The best chances of recovery from residual paralysis demand skillful after-care, often long continued, and always under the direction of a physician familiar with the neurological and orthopedic principles of treatment. The provision of such after-care often becomes a community problem, demanding the co-operation of all available agencies, social and professional.

OPINION OF THE ATTORNEY-GENERAL ON CERTAIN QUESTIONS RELATING TO VAC- CINATION.

THE COMMONWEALTH OF MASSACHUSETTS,

DEPARTMENT OF THE ATTORNEY-GENERAL, BOSTON, Nov. 6, 1916.

Dr. EUGENE R. KELLEY, *Director of Division of Communicable Diseases.*

DEAR SIR:— You have submitted the following questions with reference to the validity of certain certificates for exemption from vaccination, namely:—

1. Must the physician make a personal examination?
2. Must the physician who signs the certificate be the one who makes this examination?
3. Must the certificate be so worded that it shows that it is the opinion of the examining and signing physician that the *cause* stated is sufficient?
4. Must not the certificate be so worded that it gives it as the *opinion of the physician who signs the certificate* that the child is not a fit subject for vaccination?

The Legislature has established at least three different regulations affecting children with reference to examinations by physicians on account of illness, or for the prevention of smallpox by vaccination.

St. 1906, c. 502, entitled "An Act relative to the appointment of school physicians," provides that a school physician shall make an examination of every child returning to school without a certificate from the board of health after absence on account of illness or from unknown cause, and in case such child shows symptoms of a contagious disease he is to be prohibited from attending school by order of the school board. This statute, however, makes no reference to the subject of vaccination, nor does it give any authority to the school physician other than that of examination.

R. L., c. 44, sect. 6, as amended by St. 1907, c. 215, provides for certificates of exemption from vaccination of children attending public schools, and is as follows: —

A child who has not been vaccinated shall not be admitted to a public school except upon presentation of a certificate granted for cause stated therein, signed by a regular practising physician that he is not a fit subject for vaccination. A child who is a member of a household in which a person is ill with smallpox diphtheria, scarlet fever, measles, or any other infectious or contagious disease, or of a household exposed to such contagion from another household as aforesaid, shall not attend any public school during such illness until the teacher of the school has been furnished with a certificate from the board of health of the city or town, or from the attending physician of such person, stating that danger of conveying such disease by such child has passed.

R. L., c. 75, sects. 136–139, inclusive, deal generally with the subject of vaccination. Section 139, as amended by St. 1902, c. 190, sect. 2, provides as follows: —

Any person over twenty-one years of age who presents a certificate signed by the register of a probate court that he is under guardianship shall not be subject to the provisions of section one hundred and thirty-seven; and any child who presents a certificate, signed by a registered physician designated by the parent or guardian, that the physician has at the time of giving the certificate personally examined the child and that he is of the opinion that the physical condition of the child is such that his health will be endangered by vaccination shall not, while such condition continues, be subject to the provisions of section six of chapter forty-four of the Revised Laws or of the three preceding sections of this chapter; and the parent or guardian of such child shall not be liable to the penalties imposed by section one hundred and thirty-six of this chapter.

It will be seen, therefore, that chapter 44 of the Revised Laws refers alone to vaccination for the purpose of attending school, and the sections of chapter 75 of the Revised Laws apply to both children and adults, irrespective of school attendance. It will also be observed that

said section 137 of chapter 75 gives the boards of health in cities and towns the right to enforce vaccination of all inhabitants, except as provided in section 139.

In answer to the questions submitted by you, assuming they relate to school attendance, it is evident that only R. L., c. 44, applies. If a child desiring admission to a public school presents a certificate, signed by a regular practicing physician, that "he is not a fit subject for vaccination," with the "cause stated therein," the statute is complied with. Under this chapter a personal examination by a physician is not necessary, and hence your second question does not require an answer.

Your third question is to be answered in the negative, and your fourth question in the affirmative. The statute expressly provides that the exemption certificate shall state that the child "is not a fit subject for vaccination." That necessarily is a matter of opinion, and, as such, is the opinion of the physician signing the certificate. It would not seem necessary to require such physician to further emphasize his opinion by asserting that it is also his opinion that the cause stated is sufficient to justify his statement. The cause stated, in my judgment, must be an adequate and lawful one in order to give the certificate validity. A cause absurd on its face, showing a deliberate intent to evade the statute, would not be, in my opinion, a compliance with it.

R. L., c. 75, sect. 139, which is enforceable only by boards of health of cities and towns, compels a personal examination by a physician and a statement that in his opinion the physical condition of a person is such that his health would be endangered by vaccination, in order to avoid the requirements of the chapter. Under this section no cause need be assigned by the physician for his statement.

It is to be noted that the provision for a certificate under the provisions of this chapter 44, section 6 of the Revised Laws, as amended by St. 1907, c. 215, is not to be construed as taking away from the school committee the power to make proper regulations for the protection of all the pupils, if the prevalence of smallpox seems to require special precautions. When such a prevalence exists, under proper regulations the school committee can exclude all pupils who have not been vaccinated. (*Hammond v. Hyde Park*, 195 Mass. 29.)

Very truly yours,

HENRY C. ATTWILL,
Attorney-General.

FOOD AND DRUGS.

During the month of October, 1916, samples were collected in 35 cities and towns.

There were 973 samples of milk examined, of which 190 were below the legal standard, 25 contained added water, and 28 were skimmed samples not properly labeled. There were 161 samples of food examined, of which the following were adulterated: 18 samples of frozen eggs taken from cold storage; 5 samples of sausages containing starch in excess of 2 per cent.; 3 samples of Hamburg steak containing sulphites, and not so labeled; 8 samples of shellfish containing added water; and 1 sample of decomposed shrimp. There were 99 samples of drugs examined, of which 13 were adulterated. These consisted of alcohol, spirit of nitrous ether, spirit of wintergreen and tincture of iodine, somewhat deficient in the active ingredient.

There were 17 convictions obtained for violation of the law, \$500 in fines being imposed. Charles F. Benz in Pittsfield, Manuel Coray in Fall River, Frank L. Hood in Athol, Manuel C. Leit in New Bedford, Leonard C. Linscott in Hingham, Angelo Mello in New Bedford and Jacob Tomkiewicz in New Bedford were convicted for violating the milk laws. Philip Belmarsh in Roxbury, William L. Honen in Roxbury and Benjamin Stone in Taunton were convicted for violating the drug laws. Max Abrams in Dorchester was convicted for violating the food laws. The Haverhill Mattress Company of Haverhill was convicted for violation of the mattress law. This case was entered in collaboration with the board of health of Haverhill. George A. Titcomb in Amesbury was convicted for violation of the slaughtering laws. Fred J. Atkinson, John J. Bowden and Parke, Davis & Co. were convicted in Boston for refusing to sell to an inspector of the State Department of Health. This Department had reason to believe that Parke, Davis & Co. were selling a certain adulterated drug in Massachusetts, and were unable to obtain a sample upon application at the Boston office of this corporation; therefore the corporation and both of the employees interviewed by our inspectors were taken into court for violation of section 20 of chapter 75 of the Revised Laws. In these cases the court imposed a fine of \$300 upon the corporation, and \$50 upon each of the other two defendants. These three cases were appealed, as were also the cases of Benjamin Stone and William L. Honen.

There were 11 confiscations made, of which 9 were of articles in cold storage. These consisted of 825 pounds of decomposed, broken-out eggs, 5,045 pounds of fish, and 1,112 pounds of meat. Two confiscations, consisting of 10 gallons of scallops, were made in retail fish markets.

In accordance with the Acts of 1902, chapter 272, the following is the list of articles of adulterated food collected in original packages from manufacturers, wholesalers or producers:—

Four samples of skimmed milk not properly labeled, produced by Artemus L. Morrow, Braintree; 9 samples of watered milk produced by Abraham Kelley, Norwood; and 8 samples of watered milk produced by Margaret M. Carter, Wakefield.

SUMMARY OF REPORT ON INSPECTION OF SLAUGHTERING FOR THE QUARTER ENDING SEPT. 30, 1916.

The inspectors of 13 towns failed to make their reports. The inspectors of 57 localities reported no slaughtering. The inspectors of 76 localities reported confiscations, and the balance, representing 207 localities, reported no confiscations. In 25 of these places sufficient numbers of animals were slaughtered to warrant the finding of diseased conditions, providing that the animals slaughtered in these localities were as representative as those slaughtered elsewhere.

In all, 5,770 cattle were inspected, of which 112, representing 1.9 per cent., or 1 of each 53 animals killed, were confiscated. 91.8 per cent. of these were confiscated by reason of tuberculosis, while the balance, or 8.2 per cent., were confiscated for 12 different reasons.

The total calves inspected were 18,830; 218 of these, representing 1.2 per cent., or 1 of each 87, were confiscated. Of the confiscated calves 89.3 per cent. were immature, 1.9 per cent. were tuberculous, 1.9 per cent. were stillborn, 2.3 per cent. were weak, and the balance, or 4.6 per cent., were confiscated for 8 different reasons.

In all, 5,140 hogs were slaughtered, of which 17, or 0.3 per cent., were confiscated. Of these confiscated hogs 35.3 per cent. were tuberculous, 29.4 per cent. were anæmic, 17.6 per cent. had hog cholera, and the balance, or 17.7 per cent., were confiscated for 4 different causes.

There were 2,250 sheep slaughtered, of which 12 were confiscated, 10 by reason of modular disease. Confiscations of sheep are very rare.

Of the total carcasses confiscated 54 per cent. were immature and 30 per cent. were tuberculous.

SUMMARY OF REPORT ON COLD STORAGE OF FOOD FOR THE QUARTER ENDING NOV. 30, 1916.

A compilation of the reports of the cold-storage warehouses shows that there were placed in storage during the months of July, August and September, 2,853,660 dozens of eggs, 523,190 pounds of broken-

out eggs, 19,679,114 pounds of butter, 2,296,832 pounds of poultry, 5,995,557 pounds of meat and meat products, and 10,918,164 pounds of fish.

There were on hand in the storage warehouses on the first day of October, 12,418,560 dozens of eggs and 23,461,416 pounds of butter.

The storage of meat was slightly less than during the same period last year. The storage of fish, butter and poultry was slightly higher than the 1915 figures, and the egg storage was substantially the same.

NEW LEGISLATION.

GENERAL ACTS, CHAPTER 228.

AN ACT RELATIVE TO THE PRODUCTION AND SALE OF MILK.

Be it enacted, etc., as follows:

SECTION 1. Section one of chapter seven hundred and forty-four of the acts of the year nineteen hundred and fourteen is hereby amended by inserting after the word "the", in the seventh line, the words: — milk and of the, — and by inserting after the word "produced", in the eighth line, the words: — and handled, — and by striking out all after the word "for", where it first occurs in the fourteenth line, and inserting in place thereof the words: — said permit or for said inspection, — so as to read as follows: — *Section 1.* It shall be unlawful for any producer of milk or dealer in milk to sell or deliver for sale in any city or town in the commonwealth any milk produced or dealt in by him without first obtaining from the board of health of such city or town a permit authorizing such sale or delivery. Said boards of health are hereby authorized to issue such permits after an inspection, satisfactory to them, of the milk and of the place in which and of the circumstances under which such milk is produced, and handled, has been made by them or by their authorized agent. Any permit so granted may contain such reasonable conditions as said board may think suitable for protecting the public health and may be revoked for failure to comply with any of such conditions. No charge shall be made to the producer for said permit or for said inspection.

SECTION 2. This act shall take effect upon its passage. [*Approved May 17, 1916.*]

RÉSUMÉ OF COMMUNICABLE DISEASES FOR OCTOBER, 1916.

Prevalence. — In spite of the excessive number of cases of infantile paralysis reported during the current month, the total number of cases of communicable diseases reported to the Department is considerably lower than the total for the corresponding month last year,

and only slightly higher than the total for the previous month of this year. All of the diseases with the exception of anterior poliomyelitis, smallpox and mumps show a marked decrease over last year's figures for October, especially diphtheria, typhoid and whooping cough.

Smallpox. — Cases of smallpox appeared in Lee and Great Barrington during the month of October. Its origin was apparently a missed case which occurred back in August, imported from another State. During the months of August, September and October 9 cases in all have occurred. An interesting fact is that in only one of these instances is there a history of vaccination having been performed, and in this case it did not take and was not repeated.

Anterior Poliomyelitis. — Basing an estimate on the incomplete records received, the fatality rate for anterior poliomyelitis for October bids fair to be a little lower than that for September. The fatality rate for September was 24.7.

It will be noted that there is an increase of 80 cases of infantile paralysis in October over the number credited to September, making a total of 702 for the present month. This increase has been largely in the metropolitan area. Boston heads the list, with an increase of about 57; Quincy with one of 33; and Cambridge with one of 22. The disease still persists in the western part of the State, but a diminution in intensity in that section is perceptible.

Following is a list of towns in which infantile paralysis has appeared for the first time during the month of October: Andover, Amherst, Athol, Attleboro, Belchertown, Cheshire, Deerfield, Dennis, Easton, Egremont, Grafton, Halifax, Hatfield, Holbrook, Hopkinton, Longmeadow, Ipswich, Manchester, Mashpee, Natick, Northborough, Northbridge, Swansea, Templeton, Walpole, Wenham, Westwood, Warwick, Whately, Wilbraham and Wilmington.

DISTRIBUTION.

All Communicable Diseases.

	September, 1916.	October, 1916.	October, 1915.
Total cases,	3,130	3,260	4,550
Case rate per 100,000 population,	83.0	86.0	120.6

Common Diseases.

	Sep- tember, 1916.	Oct- tober, 1916.	Oct- tober, 1915.	Cities and Towns which have exceeded their Endemic Index. ¹
Diphtheria: —				
Total cases, ...	470	620	1,223	{ North Attleborough, (1) 13
Case rate per 100,000 population, . .	12.4	16.4	32.4	{ Malden, ... (15) 22
				{ Belmont, ... (0) 6
				{ Webster, ... (2) 9
				{ Ludlow, ... (0) 10
				{ Westfield, ... (2) 14 ²
Measles: —				
Total cases, ...	175	250	361	{ Reading, ... (0) 16
Case rate per 100,000 population, . .	4.6	6.6	9.6	{ Lowell, ... (7) 32
				{ Framingham, ... (3) 19
				{ Gardner, ... (1) 12
				{ Leominster, ... (0) 60
				{ Northampton, ... (0) 20
Scarlet fever: —				
Total cases, ...	203	309	480	{ Norwood, ... (1) 7
Case rate per 100,000 population, . .	5.4	8.3	12.7	{ Woburn, ... (2) 7
				{ Worcester, ... (15) 31
				{ Springfield, ... (5) 17
				{ Westfield, ... (1) 17
				{ Montague, ... (0) 8
Typhoid fever: —				
Total cases, ...	373	180	440	{ Fall River, ... (16) 29
Case rate per 100,000 population, . .	9.9	4.8	11.7	{ Lynn, ... (8) 15
Whooping cough: —				
Total cases, ...	271	172	649	{ Quincy, ... (1) 7
Case rate per 100,000 population, . .	7.2	4.6	17.2	{ Clinton, ... (1) 32
Tuberculosis, pulmonary: —				
Total cases, ...	602	539	732	
Case rate per 100,000 population, . .	15.9	14.3	19.4	
Tuberculosis, other forms: —				
Total cases, ...	58	51	85	
Case rate per 100,000 population, . .	1.5	1.4	2.3	

¹ Endemic index signifies the average for five years of reported cases exclusive of epidemics. This index is applied to each city and town for each month for certain communicable diseases. The numbers in parentheses after the names of each city and town indicate the endemic index for that city or town; the numbers without parentheses indicate the cases reported during the current month.

² Nine cases reported as "healthy carriers."

Tuberculosis. — The number of cases of tuberculosis, all forms, reported for October, 1916, shows a falling off over those of the previous month, and a still greater decrease over the figures of a year ago. Part of this, at least, may be ascribed to a better system of "weeding out" cases reported more than once to this Department.

Rare Diseases. — Anthrax was reported from Woburn (1) and Dartmouth (1).

Cerebro-spinal meningitis was reported from Chicopee (1), Clinton (1), Lawrence (1), Lowell (1), Mattapoisett (1), Worcester (1) and Boston (5.)

Dysentery was reported from Newton (2), Worcester (1) and Boston (16).

Dog bite (requiring antirabic treatment) was reported from Great Barrington (1).

Pellagra was reported from Leominster (1), Monson (1) and Boston (1).

Septic sore throat was reported from Fall River (1), Amherst (1), Freetown (1), Lynn (1), Georgetown (1), Haverhill (1) and Boston (1).

Tetanus was reported from Lowell (1), Dartmouth (1), Lawrence (1) and Salem (1).

Malaria was reported from Fall River (5) and Wellesley (1).

Trachoma was reported from Leominster (2), Bridgewater (1) and Boston (2).

REPORT UPON THE WORK OF THE BACTERIOLOGICAL LABORATORY FOR THE MONTH OF OCTOBER, 1916.

The following gives the total number of bacteriological examinations made in the laboratory of the State Department of Health during the month of October, 1916:—

	Number of Examinations.	DIAGNOSIS.		RELEASE.	
		Positive.	Negative.	Positive.	Negative.
Diphtheria, ...	1,181	127	697	83	274

	Number of Examinations.	Positive.	Negative.	*Atypical.
Tuberculosis, ...	250	55	195	
*Typhoid fever (Widal test), . .	168	47	116	5
Typhoid fever (culture test), . .	84	14	70	
Malaria, ...	6	—	6	
Miscellaneous, ...	147			

Total number of examinations made, 1,836.

The following gives the total number of biological products and diagnostic outfits distributed by the State Department of Health during the month of October, 1916:—

Biological Products.

Diphtheria antitoxin: —

12,000 units (special for the Boston City Hospital), ...	228 bottles.
3,000 units, ...	3,457 bottles.
1,500 units, ...	1,034 bottles.
750 units, ...	356 bottles.

Smallpox vaccine: —

Capillary tubes, ...	8,502
Bulk, ...	200

Typhoid vaccine: —

Ampoules, ...	1,294
Bulk, ...	500

Antimeningitis serum, ... 95 bottles.

Silver nitrate solution, ... 3,556 ampoules.

Diagnostic Outfits.

Culture tubes, ...	1,482
Culture media, ...	36
Sputum bottles, ...	428
Widal outfits, ...	268
Bile outfits, ...	90
Malaria-Gonorrhœa outfits, ...	8

REPORT OF INDUSTRIAL DISEASES FOR THE MONTH OF OCTOBER, SUBMITTED THROUGH THE COURTESY OF THE STATE BOARD OF LABOR AND INDUSTRIES.

OCCUPATIONAL DISEASES.

DISEASE.	Occupation.	Sex.	Age.	Color.
Lead poisoning, . . .	Painter, . . .	M	24	W
Lead poisoning, . . .	Car painter, . . .	M	35	W
Lead poisoning, . . .	Ship worker, . . .	M	22	W
Lead poisoning, . . .	Melter, . . .	M	48	W
Nitrous fumes, . . .	Dye manufacturing, . . .	M	41	W
Lead poisoning, . . .	House painter, . . .	M	25	W
Lead poisoning, . . .	Painter, . . .	M	44	W
Lead poisoning, . . .	Rubber mixer, . . .	M	37	W
Lead poisoning, . . .	Ship building, . . .	M	53	W
Anthrax, . . .	Flesher, . . .	M	23	W
Lead poisoning, . . .	House painter, . . .	M	25	W
Lead poisoning, . . .	House painter, . . .	M	35	W
Lead poisoning, . . .	House painter, . . .	M	32	W

Cases of lead poisoning, 11; cases of anthrax, 1; cases of nitrous fumes, 1; total number of cases, 13.

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Population estimated as of July 1, 1916.	Total Deaths from All Causes.	63A		19A		9		19B		6	
				Ante- rior Poli- omyeli- tis.		Chicken Pox.		Diph- theria.		Ger- man Mea- sles.		Mea- sles.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	Massachusetts, ...	3,779,033	4,270	623	155	67	-	471	36	7	-	175	12
2	CITIES OVER 200,000.												
3	Boston, ...	763,529	980	172	61	22	-	86	9	3	-	46	3
4	CITIES, 150,000-200,000.												
5	Worcester, ...	166,735	213	7	2	3	-	30	2	-	-	3	-
6	CITIES, 100,000-150,000.	563,343	728	61	13	8	-	78	8	2	-	70	6
7	Fall River, ...	126,119	186	3	1	4	-	17	2	-	-	15	3
8	New Bedford, ...	112,689	151	-	-	2	-	10	2	1	-	6	-
9	Cambridge, ...	109,785	99	14	-	-	-	29	1	-	-	18	-
10	Lowell, ...	108,385	156	5	-	1	-	18	2	-	-	29	2
11	Springfield, ...	106,365	136	39	12	1	-	4	1	1	-	2	1
12	CITIES, 50,000-100,000.	453,749	473	84	22	3	-	51	6	-	-	9	2
13	Lynn, ...	97,366	85	9	2	2	-	9	1	-	-	-	-
14	Lawrence, ...	91,314	90	-	-	-	-	15	1	-	-	1	1
15	Somerville, ...	89,178	85	10	3	-	-	14	1	-	-	-	1
16	Brockton, ...	63,590	56	2	-	-	-	-	-	-	-	-	-
17	Holyoke, ...	61,562	101	59	16	1	-	10	2	-	-	8	-
18	Haverhill, ...	50,739	56	4	1	-	-	3	-	-	-	-	-
19	CITIES AND TOWNS, 25,000-50,000.	534,149	536	117	21	14	-	32	6	1	-	10	-
20	Malden, ...	49,996	48	18	6	5	-	4	-	-	-	2	-
21	Chelsea, ...	46,078	47	5	1	1	-	3	-	-	-	-	-
22	Newton, ...	43,912	32	5	-	-	-	4	-	-	-	1	-
23	Quincy, ...	42,615	40	12	3	1	-	5	-	-	-	1	-
24	Pittsfield, ...	41,416	65	32	6	-	-	5	2	-	-	1	-
25	Fitchburg, ...	40,098	45	2	1	-	-	23	1	-	-	3	-
26	Everett, ...	38,741	26	10	-	-	-	7	-	-	-	-	-
27	Salem, ...	38,662	45	1	-	-	-	3	-	-	-	-	-
28	Taunton, ...	36,621	62	1	-	-	-	4	1	1	-	-	-
29	Brookline, ...	34,867	25	4	1	5	-	4	-	-	-	-	-
30	Medford, ...	32,286	21	9	2	-	-	3	-	-	-	-	-
31	Chicopee, ...	31,283	43	8	-	-	-	9	2	-	-	2	-
32	Waltham, ...	30,715	24	2	-	2	-	4	-	-	-	-	-
33	Revere, ...	26,859	13	8	1	-	-	4	-	-	-	-	-
34	CITIES AND TOWNS, 10,000-25,000.	547,500	512	78	10	5	-	74	2	-	-	17	-
35	Gloucester, ...	24,497	19	1	-	-	-	1	-	-	-	-	-
36	Beverly, ...	24,001	24	8	3	-	-	6	-	-	-	-	-
37	Northampton, ...	22,191	28	1	1	-	-	1	-	-	-	7	-
38	North Adams, ...	22,039	27	8	-	-	-	-	-	-	-	4	-
39	Peabody, ...	19,327	17	-	-	-	-	-	-	-	-	-	-
40	Attleboro, ...	19,027	16	-	-	-	-	1	-	-	-	-	-
41	Westfield, ...	18,953	27	1	-	-	-	10	-	-	-	-	-
42	Leominster, ...	17,662	17	3	-	-	-	-	-	-	-	1	-
43	Watertown, ...	17,395	12	1	-	-	-	4	-	-	-	-	-
44	Melrose, ...	17,161	12	2	-	-	-	6	-	-	-	-	-
45	Gardner, ...	16,781	12	-	-	-	-	2	-	-	-	3	-
46	Woburn, ...	16,676	12	1	-	-	-	6	1	-	-	-	-
47	Framingham, ...	16,564	14	-	-	1	-	4	-	-	-	1	-
48	Arlington, ...	15,784	12	4	1	-	-	-	-	-	-	-	-
49	Marlborough, ...	15,412	14	1	1	-	-	-	-	-	-	-	-
50	Newburyport, ...	15,398	14	13	3	-	-	-	-	-	-	-	-
51	Methuen, ...	14,625	18	1	-	-	-	1	-	-	-	-	-

TO THE PUBLIC HEALTH, SEPTEMBER, 1916.

19C		38A		7		28		29-35		1		8		61A		14		4		75A		
Mumps.		Ophthal- mia Neona- torum.		Scar- let Fever.		Tuber- culosis, Pulmo- nary.		Tuber- culosis, Other Forms.		Ty- phoid Fever.		Whoop- ing Cough.		Cere- bro- spinal Menin- gitis.		Dysen- tery.		Mala- ria.		Tra- choma		
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Line No.
43	-	138	-	200	3	611	343	58	80	371	32	271	32	16	11	23	2	19	-	12	-	1
25	-	57	-	33	1	192	108	22	17	43	2	58	10	7	3	19	-	6	-	8	-	2
-	-	4	-	18	-	44	20	2	6	8	1	-	-	1	-	-	-	1	-	-	-	4
1	-	31	-	19	1	110	39	10	22	78	10	65	6	4	3	-	-	2	-	1	-	5
-	-	5	-	4	-	28	15	2	5	53	3	29	2	1	1	-	-	1	-	-	-	7
1	-	8	-	4	1	32	6	1	5	9	1	3	3	-	1	-	-	-	-	-	-	8
-	-	10	-	3	-	21	5	2	3	6	-	16	1	-	-	-	-	1	-	-	-	9
-	-	4	-	2	-	20	10	2	4	9	4	2	2	-	3	1	-	-	-	-	1	10
-	-	4	-	6	-	9	3	3	5	1	2	15	-	-	-	-	-	-	-	-	-	11
-	-	14	-	23	1	58	34	6	9	104	6	40	3	1	1	3	1	1	-	-	-	12
-	-	3	-	7	-	12	8	1	-	88	4	2	-	-	-	-	-	-	-	-	-	13
-	-	2	-	2	-	12	8	2	3	7	1	3	-	-	-	-	-	-	-	-	-	14
-	-	1	-	3	1	14	11	1	1	1	1	1	3	1	-	-	-	-	-	-	-	15
-	-	-	-	-	-	8	3	-	4	1	-	4	-	17	-	-	-	-	-	-	-	16
-	-	8	-	4	-	4	4	2	1	3	1	13	2	1	1	3	1	1	-	-	-	17
1	-	21	-	25	-	78	29	11	6	42	3	35	6	1	1	-	-	3	-	2	-	18
-	-	4	-	5	-	11	-	2	-	3	-	-	-	-	-	-	-	1	-	-	-	19
-	-	6	-	2	-	6	3	1	-	6	-	4	-	-	-	-	-	-	-	2	-	20
-	-	-	-	2	-	3	2	1	1	7	1	-	-	-	1	-	-	1	-	-	-	21
-	-	1	-	2	-	8	3	-	1	3	-	2	1	-	-	-	-	-	-	-	-	22
-	-	-	-	2	-	3	5	-	-	1	-	-	-	-	-	-	-	-	-	-	-	23
-	-	-	-	-	-	7	1	1	-	2	-	2	-	-	-	-	-	-	-	-	-	24
-	-	4	-	2	-	8	4	2	1	8	-	5	-	1	-	-	-	1	-	-	-	25
-	-	2	-	2	-	6	3	2	1	1	2	10	1	-	-	-	-	-	-	-	-	26
-	-	-	-	1	-	9	4	-	-	2	-	-	3	-	-	-	-	-	-	-	-	27
1	-	-	-	-	-	4	2	-	-	2	-	-	1	-	-	-	-	-	-	-	-	28
-	-	1	-	3	-	3	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	29
-	-	1	-	1	-	4	1	1	1	1	-	5	1	-	-	-	-	-	-	-	-	30
-	-	-	-	2	-	5	1	1	1	-	-	5	-	-	-	-	-	-	-	-	-	31
-	-	1	-	1	-	1	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	32
6	-	5	-	41	-	49	37	5	8	52	6	21	6	2	3	-	-	1	-	-	-	33
-	-	-	-	1	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	34
-	-	-	-	1	-	3	1	1	1	-	3	2	-	-	-	-	-	-	-	-	-	35
-	-	1	-	1	-	2	1	-	1	6	2	-	-	-	-	-	-	-	-	-	-	36
-	-	-	-	1	-	-	3	1	-	9	1	-	-	-	1	1	-	-	-	-	-	37
-	-	1	-	2	-	3	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	38
-	-	-	-	3	-	1	1	-	-	4	-	-	-	1	-	-	-	-	-	-	-	39
-	-	-	-	4	-	3	9	-	-	3	-	1	-	-	-	-	-	-	-	-	-	40
-	-	-	-	-	-	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41
-	-	1	-	-	-	3	1	-	1	2	-	-	-	-	-	-	-	-	-	-	-	42
1	-	-	-	-	-	2	1	-	-	3	-	-	-	-	-	1	-	-	-	-	-	43
-	-	1	-	1	-	2	1	-	1	3	-	-	-	-	-	-	-	-	-	-	-	44
2	-	-	-	2	-	1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	45
-	-	-	-	-	-	1	-	-	-	-	1	3	-	-	-	-	-	-	-	-	-	46
1	-	1	-	1	-	-	2	-	-	1	-	-	-	-	-	-	-	-	-	-	-	47
-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48
-	-	-	-	1	-	1	-	1	1	2	-	-	-	-	-	-	-	-	-	-	-	49
-	-	-	-	1	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50
-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation estimated as of July 1, 1916.	Total Deaths from All Causes.	63A		19A		9		19B		6	
				Ante- rior Polio- myeli- tis.		Chicken Pox.		Diph- theria.		Ger- man Meas- les.		Meas- les.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
52	Southbridge, ...	14,605	10	1	-	-	-	2	-	-	-	-	-
53	Weymouth, ...	14,229	9	3	-	-	-	-	-	-	-	-	-
54	Milford, ...	13,836	11	3	-	-	-	2	-	-	-	-	-
55	Winthrop, ...	13,393	5	2	-	-	-	-	-	-	-	-	-
56	Adams, ...	13,264	19	5	1	-	-	2	-	-	-	-	-
57	Clinton, ...	13,220	10	-	-	-	-	1	-	-	-	1	-
58	Greenfield, ...	13,152	16	1	-	-	-	1	-	-	-	-	-
59	Plymouth, ...	13,116	10	-	-	-	-	-	-	-	-	-	-
60	Wakefield, ...	13,114	8	1	-	-	-	1	-	-	-	-	-
61	Webster, ...	12,820	11	-	-	-	-	1	-	-	-	-	-
62	West Springfield, ...	11,850	9	4	-	-	-	2	1	-	-	-	-
63	Norwood, ...	11,693	12	1	-	-	-	1	-	-	-	-	-
64	Danvers, ...	11,601	25	2	-	1	-	1	-	-	-	-	-
65	Dedham, ...	11,468	9	5	-	2	-	1	-	-	-	-	-
66	Natick, ...	11,442	9	-	-	1	-	14	-	-	-	-	-
67	Saugus, ...	10,753	12	2	-	-	-	1	-	-	-	-	-
68	Winchester, ...	10,173	9	3	-	-	-	2	-	-	-	-	-
69	Easthampton, ...	10,164	7	-	-	-	-	-	-	-	-	-	-
70	Athol, ...	10,084	16	-	-	-	-	-	-	-	-	-	-
71	TOWNS, 5,000-10,000.	556,569	385	49	12	4	-	36	-	1	-	11	1
72	TOWNS, 2,500-5,000.	185,118	187	26	3	-	-	27	2	-	-	3	-
73	TOWNS UNDER 2,500.	209,342	256	29	11	8	-	7	2	-	-	6	-

In addition to the above there occurred 5 cases of pellagra, 1 in Boston, 1 in Lynn, 3 in Worcester, and 4 deaths, 1 in Medfield, 1 in Westborough and 2 in Worcester; 7 cases of dog bite, 1 in Attleboro, 1 in Brockton, 1 in Fall River, 3 in Hull, 1 in Lowell; 2 cases of tetanus, 1 in Nantucket, 1 in Worcester, and 3 deaths, 1 in Nantucket, 1 in Pittsfield and 1 in Worcester; 7 cases of septic sore throat, 1 in Amherst, 5 in Boston, 1 in Taunton, and 4 deaths, 1 in Brockton, 1 in Malden, 1 in Taunton and 1 in Springfield.

MASSACHUSETTS STATE DEPARTMENT OF HEALTH.

Commissioner, ALLAN J. McLAUGHLIN, M.D.

Division of Administration,	. . .	Acting Director, LYMAN A. JONES, M.D.
Division of Sanitary Engineering,	. . .	Director and Chief Engineer, X. H. GOODNOUGH, C.E.
Division of Communicable Diseases,	. . .	Director, E. R. KELLEY, M.D.
Division of Water and Sewage Laboratories,		Director and Chemist, H. W. CLARK.
Division of Biologic Laboratories,	. . .	Director and Pathologist, MILTON J. ROSENAT, M.D.
Division of Food and Drugs,	. . .	Director and Analyst, HERMANN C. LYTHERGOE.
Division of Hygiene,	. . .	Director, LYMAN A. JONES, M.D.

Public Health Council.

ALLAN J. McLAUGHLIN, M.D., *Chairman.*

WM. T. SEDGWICK, Ph.D.	JOSEPH E. LAMOUREUX, M.D.
GEORGE C. WHIPPLE, S.B.	WM. J. GALLIVAN, M.D.
DAVID L. EDSALL, M.D.	JOHN T. WHEELWRIGHT.

State District Health Officers.

The Southeastern District,	. . .	ADAM S. MACKNIGHT, M.D., Fall River.
The Eastern District,	. . .	MERRILL E. CHAMPION, M.D., Wollaston.
The Northeastern District,	. . .	ARTHUR A. BROWN, M.D., Swampscott.
The North Midland District,	. . .	CHARLES E. SIMPSON, M.D., Lowell.
The South Midland District,	. . .	WILLIAM W. WALCOTT, M.D., Natick.
The Wachusett District,	. . .	FRANCIS A. FINNEGAN, M.D., Fitchburg.
The Connecticut Valley District,	. . .	JOHN S. HITCHCOCK, M.D., Northampton.
The Berkshire District,	. . .	STANLEY H. OSBORN, M.D., North Adams.

PUBLIC HEALTH BULLETIN

ISSUED MONTHLY

BY THE

STATE DEPARTMENT OF HEALTH
OF MASSACHUSETTS



DECEMBER, 1916

Vol. 3, No. 12

ALLAN J. McLAUGHLIN, M.D., *Commissioner*

The Common Health of the Commonwealth

Entered as Second-class Matter Oct. 26, 1914, at the Post Office at Boston, Mass.,
under the Act of Aug. 24, 1912.

CONTENTS.

	PAGE
Division of Hygiene, ...	229
Child Welfare Exhibit, ...	229
Lecture Service, ...	230
Food and Drugs, ...	230
Résumé of Communicable Diseases for November, 1916, ...	232
Report of the Bacteriological Laboratory, ...	235
Report of Industrial Diseases for November, 1916, ...	237
Cases and Deaths from Diseases Dangerous to the Public Health for Cities and Towns, October, 1916, ...	238

DIVISION OF HYGIENE.

CHILD WELFARE EXHIBIT.

WHILE the value of the Child Welfare Exhibit is not always evident at the time or immediately following, the results given in a recent letter to the Division point to the possible far-reaching effect of such exhibits, and would amply justify increasing this branch of the work to even greater extent.

The following was received from a teacher in a community in which the child welfare exhibit was displayed recently: —

It is encouraging to hear, once in a while, that our work is worth while, is it not? Let me tell you what your health exhibit meant to my little eight-year-old children. I have forty-nine second and third grade children, and, as the second grade did not go to the hall, I had to remain at school with them while the third grade went down with the older children.

When they returned to school after their instructive visit I said, "We could not go to see the charts; tell us what you saw." They needed no other invitation, for they walked down the aisles with hands raised, so great was their enthusiasm.

They told me that a fly walked over an old manure pile and then right into the house and over the baby. He had germs on his body and the baby died. The lady told them to swat the fly, and they are going to do it.

They saw a baby sitting on the floor of a dirty room and flies were on the nipple of his bottle. This is what makes the baby sick.

Another baby was so thin that he was almost dead because he did not have the right food. When he was given the right food he grew fat and well. One child said a mother was giving her own milk to the baby, and that was the best food for him.

They loved the baby who was "all dressed up and clean." This is what made him so fat and healthy, and he also had clean milk. To have a baby look that way he must sleep with the windows open.

They saw a bathtub and a lovely doll baby. The baby should have a bath every day.

The children were much impressed with the farm scene. They said the barn was built up on high land, and there was a well nearby with nice clean water for the cows. The house was built on lower land, and there was a well near this into which the drainage of the barn and sink ran. The people used this dirty water themselves.

They saw a house in which there was a lovely clean room and another dirty room. They are going to have a clean room.

You would be surprised to know that the picture showing factory conditions did not pass unnoticed. One little girl said she saw a girl who had nothing but a tin plate to eat out of, and then her employer made a nice clean lunch room. Another is going to tell her father of the danger of flying dust. She said her father gets dust all over him, even in his eyes.

I wish I had time to tell you the fund of information they brought me. I felt it might be encouraging for you to know that if little eight-year-old children can get so much from a short visit the knowledge older children gain cannot be measured.

LECTURE SERVICE.

Recently a very successful group of lectures was given in several adjoining country towns by co-operation of the school superintendent, principals of the schools and others interested, where, within a period of two days, seven or eight lectures were given by a representative of the Division. Owing to the excellent efforts of those in charge a good attendance was secured and much interest shown, at the same time involving a minimum of expense, time and travel on the part of the lecturer.

We will be very glad to co-operate with any group of towns for similar work.

FOOD AND DRUGS.

During the month of November, 1916, samples were collected in 41 cities and towns.

There were 605 samples of milk examined, of which 103 were below the legal standard, 23 contained added water, and 7 were skimmed samples not properly labeled. There were 190 samples of food examined, of which the following were adulterated: 2 samples of cider containing salicylic acid and not so labeled; 2 samples of wormy confectionery; 3 samples of Hamburg steak containing sulphites and not so labeled; 5 samples of sausages containing starch in excess of 2 per cent.; 3 samples of decomposed stew meat; 11 samples of nuts which were either decomposed, moldy or wormy; 3 samples of olive oil containing cottonseed oil; 1 sample of oysters containing added water; and 18 samples of scallops containing added water. The amount of bad nuts varied from 10 to 28½ per cent. of the total weight. A butcher in Brockton shipped 1 barrel of beef lungs and cows' udders to a sausage factory in Boston. A large number of the lungs were found to be tuberculous.

There were 76 samples of drugs examined, of which 17 were adulterated. These consisted of olive oil containing cottonseed oil, spirit

of anise, spirit of camphor, spirit of nitrous ether and tincture of iodine, somewhat deficient in the active ingredient.

There were 15 convictions obtained for violation of the law, \$385 in fines being imposed. Charles Angier and John Angier of Lowell, Margaret M. Carter of Wakefield, Thomas M. Chisholm and Artemus L. Morrow of Braintree, Abraham Kelly of Norwood, Philip J. O'Keefe of Wareham and Dinah Silverman of Hingham were convicted for violating the milk laws. Abraham Kelly of Norwood appealed his case. David Cooper and Lemuel Vincent of Boston, Andreas Paoni of East Boston, and Herman Sichel of Roxbury, on two counts, were convicted for violating the food laws. Herman Sichel of Roxbury appealed one of his cases, and David Cooper of Boston appealed his case. Max G. Hirshon of Boston and James J. O'Hearne of Taunton were convicted for violating the drug laws. Mr. O'Hearne appealed his case.

There were 22 confiscations made, of which 15 were of articles in cold storage. These consisted of 2,855 pounds of decomposed eggs, 92 pounds of decomposed fowl, 660 pounds of decomposed moose and 375 pounds of sour beef livers. The other 7 confiscations were made by the veterinary inspectors, and consisted of 3,133 pounds of decomposed beef, 60 pounds of tuberculous pork and 346 pounds of immature veal.

In accordance with the Acts of 1902, chapter 272, the following is the list of articles of adulterated food collected in original packages from manufacturers, wholesalers or producers:—

One sample of skimmed milk not properly labeled, produced by Edward Boulanger, Franklin; 1 sample of skimmed milk not properly labeled, produced by George E. Wilbur, Middleborough; 1 sample of milk containing added water, produced by Abraham Kaufman, Attleboro; 3 samples of sausage manufactured by Herman Sichel, Roxbury, contained starch in excess of 2 per cent.; 3 samples of scallops from the Union Lobster Company, Boston, contained added water; 1 sample of scallops from D. Atwood Co., Boston, contained added water; and 3 samples of scallops from R. E. McKenney, Boston, contained added water.

RÉSUMÉ OF COMMUNICABLE DISEASES FOR NOVEMBER, 1916.

PREVALENCE.

Anterior Poliomyelitis. — The epidemic of infantile paralysis has continued during the current month, but with a drop from 702 cases in October to 180, most of which have been reported from the southern Connecticut valley district and the metropolitan area. The disease was reported for the first time this month in the following places only, with one case in each: Enfield, New Marlborough, Westhampton, Lee, Harvard, Concord and Franklin.

Smallpox. — The smallpox outbreak in Lee has added 9 new cases the current month, making a total of 18 cases reported in October and November. One case occurred in Chicopee on November 15 in a patient who arrived on that day from Montana. He was promptly isolated, and all possible measures taken to prevent the spread of the disease. So far no new cases have developed which might be traced to contact with this case.

Measles and Mumps. — The measles total for November has jumped from 250 last month to 707, the principal foci being Fall River, Ayer, Leominster, Reading and Framingham.

A total of 175 cases of mumps has been reported to the Department for November, most of them occurring in Framingham, Newton and Watertown.

Trichinosis. — From November 11 to 17, 11 cases of trichinosis were reported by the Springfield board of health. Ten of the cases were due to meat from an infected hog being distributed among some Italian families. The hog was uninspected at time of slaughter. The eleventh case has not been accounted for.

Malaria. — There have been 21 cases of this disease reported from Fall River the current month, 5 in October and 1 in September, which is an unusual number of cases of this disease at this season of the year. The cases are widely scattered, and, so far as can be learned, the majority of the cases have occurred in the practice of one or two physicians and in different parts of the city.

Scarlet Fever. — There were 17 cases of scarlet fever reported in Woburn during the month of November, largely connected with one of the rooms in the parochial school. The situation is being handled by the physician for the school in connection with the board of health physician.

With these exceptions, the prevalence of all of the communicable diseases in the State for November has been considerably below the average for that month for the last five years, and very much less than the number reported for the corresponding month last year.

DISTRIBUTION.

All Communicable Diseases.

	October, 1916.	November, 1916.	November, 1915.
Total cases,	3,260	3,595	4,576
Case rate per 100,000 population, . . .	86.0	95.3	124.0

Common Diseases.

	October, 1916.	November, 1916.	November, 1915.	Cities and Towns which have exceeded their Endemic Index. ¹
Diphtheria: —				
Total cases,	620	612	1,098	{ Chatham, . . . (0) 6
Case rate per 100,000 population, . . .	16.4	16.2	29.8	{ Bridgewater, . . . (0) 5
				{ Cambridge, . . . (27) 45
				{ Quincy, . . . (5) 10
				{ Ipswich, . . . (0) 5
				{ Reading, . . . (0) 8
				{ Revere, . . . (5) 13
				{ Templeton, . . . (0) 6
				{ Springfield, . . . (20) 34
				{ Westfield, . . . (1) 13
				{ Gardner, . . . (5) 24
				{ Fall River, . . . (11) 122
				{ Ipswich, . . . (1) 10
				{ Malden, . . . (3) 20
				{ Reading, . . . (0) 42
				{ Lowell, . . . (12) 38
				{ Framingham, . . . (5) 91
				{ Worcester, . . . (9) 40
				{ Ayer, . . . (0) 33
				{ Gardner, . . . (1) 31
				{ Leominster, . . . (1) 87
				{ Belchertown, . . . (0) 19
				{ Williamsburg, . . . (0) 28
				{ Taunton, . . . (3) 14
				{ Norwood, . . . (1) 6
				{ Amesbury, . . . (2) 7
				{ Lowell, . . . (6) 22
				{ Woburn, . . . (2) 17
				{ Worcester, . . . (19) 33
				{ Gardner, . . . (2) 9
				{ Orange, . . . (0) 8
				{ Chicopee, . . . (3) 9
				{ Springfield, . . . (7) 20
				{ Westfield, . . . (1) 16
Scarlet fever: —				
Total cases,	309	390	581	{ Quincy, . . . (2) 8
Case rate per 100,000 population, . . .	8.3	10.3	16.0	{ Haverhill, . . . (3) 13
				{ Acton, . . . (0) 26
				{ Needham, . . . (0) 21
				{ Clinton, . . . (0) 14
				{ Lenox, . . . (0) 7
Typhoid fever: —				
Total cases,	180	116	243	{ Quincy, . . . (2) 8
Case rate per 100,000 population, . . .	4.8	3.1	6.6	{ Haverhill, . . . (3) 13
				{ Acton, . . . (0) 26
				{ Needham, . . . (0) 21
				{ Clinton, . . . (0) 14
				{ Lenox, . . . (0) 7
Whooping cough: —				
Total cases,	172	202	678	{ Quincy, . . . (2) 8
Case rate per 100,000 population, . . .	4.6	5.3	18.4	{ Haverhill, . . . (3) 13
				{ Acton, . . . (0) 26
				{ Needham, . . . (0) 21
				{ Clinton, . . . (0) 14
				{ Lenox, . . . (0) 7
Tuberculosis, pulmonary: —				
Total cases,	539	521	545	{ Quincy, . . . (2) 8
Case rate per 100,000 population, . . .	14.3	13.8	14.7	{ Haverhill, . . . (3) 13
				{ Acton, . . . (0) 26
				{ Needham, . . . (0) 21
				{ Clinton, . . . (0) 14
				{ Lenox, . . . (0) 7
Tuberculosis, other forms: —				
Total cases,	51	44	56	{ Quincy, . . . (2) 8
Case rate per 100,000 population, . . .	1.4	1.2	1.5	{ Haverhill, . . . (3) 13
				{ Acton, . . . (0) 26
				{ Needham, . . . (0) 21
				{ Clinton, . . . (0) 14
				{ Lenox, . . . (0) 7

¹ Endemic index signifies the average for five years of reported cases exclusive of epidemics. This index is applied to each city and town for each month for the more common communicable diseases. The numbers in parentheses after the names of each city and town indicate the endemic index for that city or town; the numbers without parentheses indicate the cases reported during the current month.

Rare Diseases. — Anthrax was reported from Salem (1).

Cerebro-spinal meningitis was reported from Fall River (1), Fitchburg (1), Holden (1), Lowell (2), Lynn (2), Pittsfield (1) and Worcester (1).

Dysentery was reported from Boston (6), Haverhill (7) and New Bedford (1).

Pellagra was reported from Cambridge (1), Tewksbury State Infirmary (1) and Worcester (1).

Septic sore throat was reported from Barnstable (6), Cambridge (1), Charlemont (3), Greenfield (1), Norwood (1), Somerville (1) and Winthrop (1).

Tetanus was reported from Adams (1), Boston (1), Fall River (1), North Adams (1) and Worcester (2).

Trachoma was reported from Boston (9) and Natick (1).

REPORT UPON THE WORK OF THE BACTERIOLOGICAL LABORATORY FOR THE MONTH OF NOVEMBER, 1916.

The following gives the total number of bacteriological examinations made in the laboratory of the State Department of Health during the month of November, 1916: —

	Number of Examinations.	DIAGNOSIS.		RELEASE.	
		Positive.	Negative.	Positive.	Negative.
Diphtheria, ...	1,002	139	546	115	202

	Number of Examinations.	Positive.	Negative.	*Atypical.
Tuberculosis, ...	277	68	209	
*Typhoid fever (Widal test), ...	139	26	108	5
Typhoid fever (culture test), ...	38	8	30	
Malaria, ...	9	—	9	
Miscellaneous, ...	169			

Total number of examinations made, 1,634.

The following gives the total number of biological products and diagnostic outfits distributed by the State Department of Health during the month of November, 1916: —

Biological Products.

Diphtheria antitoxin: —

12,000 units (special for the Boston City Hospital), ...	91 bottles.
6,000 units (special for the Boston City Hospital), ...	34 bottles.
3,000 units, ...	3,673 bottles.
2,000 units (special for the Boston City Hospital), ...	24 bottles.
1,500 units, ...	942 bottles.
750 units, ...	501 bottles.

Smallpox vaccine: —

Capillary tubes, ...	14,269
Bulk, ...	100

Typhoid vaccine: —

Ampoules, ...	1,046
Bulk, ...	1,000

Antimeningitis serum, ... 164 bottles.

Silver nitrate solution, ... 2,990 ampoules.

Diagnostic Outfits.

Culture tubes, ...	1,513
Culture media, ...	36
Sputum bottles, ...	356
Widal outfits, ...	152
Bile outfits, ...	53
Malaria-Gonorrhœa outfits, ...	13

REPORT OF INDUSTRIAL DISEASES FOR THE MONTH OF NOVEMBER, SUBMITTED THROUGH THE COURTESY OF THE STATE BOARD OF LABOR AND INDUSTRIES.

OCCUPATIONAL DISEASES.

DISEASE.	Occupation.	Sex.	Age.	Color.
Lead poisoning, ...	Painter, ...	M	25	W
Lead poisoning, ...	Painter, ...	M	24	W
Caisson, ...	Laborer, ...	M	32	C
Lead poisoning, ...	Painter, ...	M	31	W
Wood alcohol poisoning, ...	Comb maker, ...	M	24	W
Lead poisoning, ...	Painter, ...	M	31	W
Lead poisoning, ...	Painter, ...	M	26	W
Lead poisoning, ...	Painter, ...	M	—	W
Lead poisoning, ...	Painter, ...	M	43	W
Caisson, ...	Laborer, ...	M	35	W
Lead poisoning, ...	Ironworker, ...	M	30	W
Nitrous fumes, ...	Drying picric acid, ...	M	26	C
Lead poisoning, ...	Air riveter, ...	M	32	W
Lead poisoning, ...	Painter, ...	M	—	—
Brass poisoning, ...	Moulder, ...	M	43	W
Lead poisoning, ...	Farmer, ...	M	48	W
Anthrax, ...	Sorter of hides, ...	M	—	W
Lead poisoning, ...	Plumber, ...	M	—	W
Lead poisoning, ...	Painter, ...	M	52	W
Lead poisoning, ...	Photo engraver, ...	M	44	W
Lead poisoning, ...	Boiler maker, ...	M	44	W
Lead poisoning, ...	Compositor, ...	M	45	W
Lead poisoning, ...	Painter, ...	M	55	W
Brass poisoning, ...	Telephone operator, ...	F	—	W

Cases of lead poisoning, 17; cases of brass poisoning, 2; cases of wood alcohol poisoning, 1; cases of caisson, 2; cases of nitrous fumes, 1; cases of anthrax, 1; total number of cases, 24.

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation estimated as of July 1, 1916.	Total Deaths from All Causes.	63A Ante- rior Poli- omyeli- tis.		19A Chicken Pox.		9 Diph- theria.		19B Ger- man Meas- les.		6 Meas- les.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1	Massachusetts, ...	3,779,033	4,133	702	151	115	-	615	44	5	-	250	7
2	CITIES OVER 500,000.												
3	Boston, ...	763,529	984	229	64	42	-	135	11	1	-	22	5
4	CITIES, 150,000-200,000.												
5	Worcester, ...	166,735	198	2	-	1	-	34	2	-	-	2	-
6	CITIES, 100,000-150,000.	563,343	673	55	6	12	-	101	11	-	-	53	1
7	Fall River, ...	126,119	169	-	-	2	-	6	-	-	-	3	1
8	New Bedford, ...	112,689	120	1	-	3	-	5	-	-	-	7	-
9	Cambridge, ...	109,785	102	36	2	4	-	34	-	-	-	10	-
10	Lowell, ...	108,385	143	4	2	3	-	28	8	-	-	32	-
11	Springfield, ...	106,365	139	14	2	-	-	28	3	-	-	1	-
12	CITIES, 50,000-100,000.	453,749	449	79	23	9	-	75	3	1	-	5	-
13	Lynn, ...	97,366	93	25	9	1	-	13	1	-	-	-	-
14	Lawrence, ...	91,314	89	1	-	1	-	21	1	-	-	2	-
15	Somerville, ...	89,178	88	17	2	1	-	15	1	-	-	-	-
16	Brockton, ...	63,590	41	-	-	4	-	5	-	1	-	1	-
17	Holyoke, ...	61,562	37	35	11	-	-	10	-	-	-	2	-
18	Haverhill, ...	50,739	51	1	1	2	-	11	-	-	-	-	-
19	CITIES AND TOWNS, 25,000-50,000.	534,149	558	152	24	17	-	94	6	1	-	10	-
20	Malden, ...	49,996	45	17	4	4	-	22	2	-	-	1	-
21	Chelsea, ...	46,078	53	1	-	-	-	6	-	-	-	1	-
22	Newton, ...	43,012	37	5	1	4	-	9	-	-	-	1	-
23	Quincy, ...	42,615	42	45	8	-	-	8	-	-	-	1	-
24	Pittsfield, ...	41,416	43	22	4	-	-	6	1	-	-	-	-
25	Fitchburg, ...	40,098	42	2	-	2	-	10	1	-	-	3	-
26	Everett, ...	38,741	34	15	1	2	-	10	-	-	-	-	-
27	Salem, ...	38,662	50	-	-	1	-	-	-	-	-	-	-
28	Taunton, ...	36,621	76	-	-	1	-	2	-	-	-	-	-
29	Brookline, ...	34,867	30	12	2	2	-	1	-	-	-	-	-
30	Medford, ...	32,286	29	6	1	1	-	1	-	1	-	1	-
31	Chicopee, ...	31,283	37	4	-	-	-	6	-	-	-	-	-
32	Waltham, ...	30,715	26	21	3	-	-	12	2	-	-	2	-
33	Revere, ...	26,859	14	2	-	-	-	1	-	-	-	-	-
34	CITIES AND TOWNS, 10,000-25,000.	547,500	483	81	18	9	-	86	3	2	-	119	1
35	Gloucester, ...	24,497	33	2	2	-	-	-	-	-	-	-	-
36	Beverly, ...	24,001	21	9	2	-	-	2	-	-	-	-	-
37	Northampton, ...	22,191	31	5	1	-	-	4	-	-	-	20	1
38	North Adams, ...	22,039	24	-	-	-	-	1	1	-	-	4	-
39	Peabody, ...	19,327	13	-	-	1	-	2	-	1	-	-	-
40	Attleboro, ...	19,027	9	1	-	2	-	9	-	-	-	-	-
41	Westfield, ...	18,983	11	-	-	-	-	14	-	-	-	1	-
42	Leominster, ...	17,662	14	-	-	-	-	8	1	-	-	60	-
43	Watertown, ...	17,395	18	1	1	2	-	3	-	-	-	-	-
44	Melrose, ...	17,161	22	14	3	-	-	-	-	-	-	-	-
45	Gardner, ...	16,781	22	2	-	1	-	3	-	-	-	12	-
46	Woburn, ...	16,676	12	2	-	-	-	-	-	-	-	-	-
47	Framingham, ...	16,564	6	3	-	-	-	6	-	-	-	19	-
48	Arlington, ...	15,784	18	1	-	-	-	2	-	-	-	-	-
49	Marlborough, ...	15,412	22	-	-	-	-	2	-	-	-	1	-
50	Newburyport, ...	15,398	21	6	2	-	-	-	-	-	-	-	-
51	Methuen, ...	14,625	9	-	-	1	-	2	-	-	-	-	-

CASES AND DEATHS FROM DISEASES DANGEROUS

Line No.	CITIES AND TOWNS GROUPED IN ORDER OF POPULATION.	Popu- lation estimated as of July 1, 1916.	Total Deaths from All Causes.	63A		19A		9		19B		6	
				Ante- rior Polio- myeli- tis.		Chicken Pox.		Diph- theria.		Ger- man Mea- sles.		Mea- sles.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
52	Southbridge, ...	14,605	10	-	-	-	-	4	-	-	-	-	-
53	Weymouth, ...	14,229	13	2	1	-	-	-	1	-	-	-	-
54	Milford, ...	13,536	2	-	-	-	-	2	-	-	-	-	-
55	Winthrop, ...	13,393	6	2	1	-	-	1	-	1	-	-	-
56	Adams, ...	13,264	14	1	-	-	-	1	-	-	-	-	-
57	Clinston, ...	13,220	1	-	-	-	-	1	-	-	-	1	-
58	Greenfield, ...	13,152	12	-	-	-	-	-	-	-	-	-	-
59	Plymouth, ...	13,116	12	-	-	-	-	-	-	-	-	-	-
60	Wakefield, ...	13,114	12	7	3	-	-	-	-	-	-	-	-
61	Webster, ...	12,820	5	1	-	-	-	9	-	-	-	-	-
62	West Springfield, ...	11,850	9	1	1	-	-	2	-	-	-	-	-
63	Norwood, ...	11,693	8	-	-	1	-	-	-	-	-	-	-
64	Danvers, ...	11,601	26	-	-	-	-	-	-	-	-	-	-
65	Dedham, ...	11,468	13	10	1	-	-	1	-	-	-	-	-
66	Natick, ...	11,442	5	1	-	-	-	3	-	-	-	1	-
67	Saugus, ...	10,753	5	4	-	-	-	-	-	-	-	-	-
68	Winchester, ...	10,173	13	3	-	1	-	3	-	-	-	-	-
69	Easthampton, ...	10,164	9	-	-	-	-	-	-	-	-	-	-
70	Athol, ...	10,084	2	3	-	-	-	1	-	-	-	-	-
71	TOWNS, 5,000-10,000.	355,569	371	43	7	12	-	59	6	-	-	30	-
72	TOWNS, 2,500-5,000.	165,118	185	22	5	8	-	17	2	-	-	5	-
73	TOWNS UNDER 2,500.	209,342	234	34	4	5	-	14	-	-	-	4	-

In addition to the above there occurred 2 cases of anthrax, 1 in Dartmouth and 1 in Woburn; 6 cases 1 in Boston, 1 in Leominster and 1 in Monson, and 3 deaths, 1 in Monson, 1 in Waltham and 1 in Worces-
Lawrence, 1 in Lowell and 1 in Salem, and 2 deaths, 1 in Fall River and 1 in Lowell; and 5 cases of

TO THE PUBLIC HEALTH — *Concluded.*

19C		38A		7		28		29-35		1		8		61A		176A		14		100		Line No.
Mumps.		Ophthalma Neonatorum.		Scarlet Fever.		Tuberculosis, Pulmonary.		Tuberculosis, Other Forms.		Typhoid Fever.		Whooping Cough.		Cerebro-spinal Meningitis.		Dog Bite requiring Antirabic treatment.		Dysentery.		Septic Sore Throat.		
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52
-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53
-	-	1	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54
-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55
-	-	-	-	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56
-	-	3	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57
-	-	1	-	1	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	58
-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	59
-	-	1	-	1	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	60
-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	61
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62
-	-	-	-	7	-	1	-	1	-	1	-	1	-	-	-	-	-	-	-	-	-	63
-	-	-	-	-	-	1	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	64
-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	65
1	-	1	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66
-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	67
-	-	-	-	-	-	-	-	-	-	1	-	6	1	-	-	-	-	-	-	-	-	68
-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69
-	-	-	-	4	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	70
11	-	6	-	36	-	52	36	6	6	8	1	5	-	-	1	1	-	-	-	1	-	71
5	-	1	-	14	-	5	8	2	5	3	-	7	1	-	-	-	-	-	-	-	-	72
2	-	1	-	18	-	3	25	1	2	11	1	12	4	1	-	-	-	-	-	2	-	73

of malaria, 5 in Fall River and 1 in Wellesley, and 1 death from malaria in Boston; 3 cases of pellagra, 1 in Fall River and 2 in Lee; 5 cases of smallpox, 4 in Great Barrington and 1 in Lee; 4 cases of tetanus, 1 in Dartmouth, 1 in trachoma, 2 in Boston, 1 in Bridgewater and 2 in Leominster; and 1 case of actinomycosis in Boston.

MASSACHUSETTS STATE DEPARTMENT OF HEALTH.

Commissioner, ALLAN J. McLAUGHLIN, M.D.

Division of Administration,	. . .	Acting Director, LYMAN A. JONES, M.D.
Division of Sanitary Engineering,	. . .	Director and Chief Engineer, X. H. GOODNOUGH, C.E.
Division of Communicable Diseases,	. . .	Director, EUGENE R. KELLEY, M.D.
Division of Water and Sewage Laboratories,		Director and Chemist, H. W. CLARK.
Division of Biologic Laboratories,	. . .	Director and Pathologist, MILTON J. ROSENAU, M.D.
Division of Food and Drugs,	. . .	Director and Analyst, HERMANN C. LYTTHGOE.
Division of Hygiene,	. . .	Director, LYMAN A. JONES, M.D.

Public Health Council.

ALLAN J. McLAUGHLIN, M.D., *Chairman.*

WM. T. SEDGWICK, Ph.D.	JOSEPH E. LAMOUREUX, M.D.
GEORGE C. WHIPPLE, S.B.	WM. J. GALLIVAN, M.D.
DAVID L. EDSALL, M.D.	JOHN T. WHEELWRIGHT.

State District Health Officers.

The Southeastern District,	. . .	ADAM S. MACKNIGHT, M.D., Fall River.
The Eastern District,	. . .	MERRILL E. CHAMPION, M.D., Wollaston.
The Northeastern District,	. . .	ARTHUR A. BROWN, M.D., Swampscott.
The North Midland District,	. . .	CHARLES E. SIMPSON, M.D., Lowell.
The South Midland District,	. . .	WILLIAM W. WALCOTT, M.D., Natick.
The Wachusett District,	. . .	FRANCIS A. FINNEGAN, M.D., Fitchburg.
The Connecticut Valley District,	. . .	JOHN S. HITCHCOCK, M.D., Northampton.
The Berkshire District,	. . .	STANLEY H. OSBORN, M.D., North Adams.

INDEX TO MONTHLY BULLETINS OF THE STATE DEPARTMENT OF HEALTH.

Vol. 3. Nos. 1-12.

	PAGE
Advertisements untrue and misleading, legislation relative to, ...	101
Anterior poliomyelitis, report of special committee at Cincinnati meeting of American Public Health Association, October, 1916, ...	209
Attorney-General, opinion of the, relative to certain questions relating to vaccination, ...	211
Attorney-General, opinion of the, relative to certain county commissioners being made trustees of any institution which makes hospital provision for consumptives under section 2, chapter 286, General Acts of 1916, ...	136
Attorney-General, opinion of the, relative to the proper construction to be given to certain words as they appear in section 12, chapter 286 of the General Acts of 1916, ...	137
Baby week, ...	53
BACTERIOLOGICAL LABORATORY, REPORT UPON THE WORK OF:	
December, ...	19
January, ...	41
February, ...	57
March, ...	79
April, ...	98
May, ...	116
June, ...	140
July, ...	158
August, ...	180
September, ...	198
October, ...	219
November, ...	235
Cancer, State Health Departments fighting, ...	49
Child Welfare Exhibit, ...	74, 229
Common drinking cup, regulations concerning, ...	82
Common towel, regulations concerning, ...	83
COLD STORAGE:	
Articles condemned upon examination as unfit for food, 21, 45, 59, 80, 97, 115, 140, 152, 175, 192, 214	
Quarterly report upon, ...	45, 98, 153, 215
Communicable diseases, laboratory aids for diagnosis and treatment of, ...	204
Résumé of, ...	11, 37, 53, 76, 94, 111, 131, 154, 175, 193, 216, 232
Deaths, legislation relative to annual report of, by boards of health in certain towns, ...	60

	PAGE
DEATHS, RETURNS OF:	
December, ...	14
January, ...	40, 62
February, ...	55, 84
March, ...	78, 104
April, ...	124
May, ...	142
June, ...	160
July, ...	182
August, ...	200
September, ...	222
October, ...	238
DISEASES DANGEROUS TO THE PUBLIC HEALTH, CASES AND DEATHS FROM:	
December, ...	13
January, ...	40, 62
February, ...	55, 84
March, ...	78, 104
April, ...	124
May, ...	142
June, ...	160
July, ...	182
August, ...	200
September, ...	222
October, ...	238
Diseases dangerous to the public health, legislation relative to notification to State Department of Health by local boards of health, ...	60
Drugs (habit forming), legislation relative to the investigation and use of, ...	117
Food and Drug Division of the State Department of Health, points of contact with local boards of health, by Hermann C. Lythgoe, Director, Division of Food and Drugs, ...	167
FOOD AND DRUGS, LABORATORY EXAMINATIONS OF:	
December, ...	20
January, ...	42
February, ...	58
March, ...	80
April, ...	96
May, ...	115
June, ...	139
July, ...	151
August, ...	174
September, ...	192
October, ...	214
November, ...	230
FOOD AND DRUGS, PROSECUTIONS FOR VIOLATIONS OF THE LAW RELATING TO:	
December, ...	21
January, ...	43
February, ...	59
March, ...	80
April, ...	97
May, ...	115
June, ...	139
July, ...	151
August, ...	174
September, ...	192
October, ...	214
November, ...	231

Food, samples of, which upon examination were found to be adulterated or improperly labeled, ...	22, 44, 58, 80, 97, 115, 140, 152, 175, 192, 214
Foodstuffs, legislation relative to the protection of, ...	172

Health creed for Massachusetts boys and girls, ...	74
Hygiene Division, child welfare exhibit and lecture service, ...	229

INDUSTRIAL DISEASES, REPORT OF:

September, ...	199
October, ...	221
November, ...	
Infant mortality in Massachusetts, ...	73
Infantile paralysis, ...	154
Infantile paralysis, legislation in regard to, ...	199

Labelling and stamping of receptacles containing articles of food, legislation relative to, ...	61
Laboratory aids for diagnosis and treatment of communicable diseases, ...	204
Lecture service, ...	230
Lecture service and Child Welfare Exhibit, ...	74, 229
Leprosy as a national and international problem, ...	149
Liquor, etc., examination of, for boards of health and other local authorities, ...	171

Milk and Baby Hygiene Association, work of, ...	91
Milk board report, summary of, ...	27
Milk-borne typhoid fever at Northbridge, October, 1915, ...	56
Milk inspectors and collectors, legislation relative to, ...	100
Milk licenses, revocation of, ...	170
Milk permits, revocation of, ...	170
Milk production and sale, legislation relative to, ...	216

NEW LEGISLATION:

Relative to the authorization of local boards of health to prevent the spread of infantile paralysis, so called (General Acts, chapter 313), ...	199
Relative to the authorization of the State Department of Health to perform certain services in its laboratory for the Department of Animal Industry (General Acts, chapter 155), ...	102
Relative to authorizing the State Department of Health to provide for the prevention and suppression of syphilis (Resolves, chapter 47), ...	81
Relative to annual report of deaths required to be made to State Department of Health by boards of health in certain towns (General Acts, chapter 53), ...	60
Relative to claims of cities and towns for the care of tuberculosis cases (General Acts, chapter 57), ...	60
Relative to the false stamping and labeling of receptacles containing articles of food and misrepresentation in the sale of food products (General Acts, chapter 58), ...	61
Relative to inspectors and collectors of milk (General Acts, chapter 134), ...	100
Relative to the license fee for slaughterhouses in towns having less than 10,000 inhabitants (General Acts, chapter 153), ...	101
Relative to the production and sale of milk (General Acts, chapter 228), ...	216
Relative to promoting the building and use of tuberculosis hospitals in cities and towns (General Acts, chapter 197), ...	118
Relative to the providing for an investigation by the State Department of Health of non-pulmonary tuberculosis (General Acts, chapter 62), ...	99

NEW LEGISLATION — Con.

Relative to providing for the appointment of a commission to investigate the extent of the use of habit-forming drugs and the effectiveness of the laws pertaining thereto (Resolves, chapter 112), ...	117
Relative to the provision for the construction by counties of tuberculosis hospitals for cities and towns having less than 50,000 inhabitants (General Acts, chapter 286), ...	119
Relative to requiring local boards of health to notify the State Department of Health of cases of dangerous diseases (General Acts, chapter 55), ...	60
Relative to the sale of poisons (General Acts, chapter 78), ...	81
Relative to the standard of vinegar and to the sale thereof (General Acts, chapter 189), ...	102
Relative to the slaughtering of neat cattle, sheep or swine not intended for sale (General Acts, chapter 139), ...	100
Relative to untrue and misleading advertisements (General Acts, chapter 149), ...	101
New vital statistics tables, ...	49
Pneumonia, ...	51
Poisons, legislation relative to the sale of, ...	81

REGULATIONS OF THE STATE DEPARTMENT OF HEALTH:

Relative to the use of the common drinking cup, ...	82
Relative to the providing of a common towel, ...	83
Relative to the protection of foodstuffs, ...	172

RÉSUMÉ OF COMMUNICABLE DISEASES:

December, ...	11
January, ...	37
February, ...	53
March, ...	76
April, ...	94
May, ...	111
June, ...	131
July, ...	154
August, ...	175
September, ...	193
October, ...	216
November, ...	232

School hygiene lectures in Martha's Vineyard, ...	75
Section 12, chapter 286, General Acts of 1916, opinion of the Attorney-General relative to proper construction to be given to certain words, ...	137
Slaughterhouses in towns having less than 10,000 inhabitants, legislation in regard to license fees, ...	101
Slaughtering of neat cattle, sheep or swine not intended for sale, legislation in regard to, ...	100
Slaughtering inspectors, appointment of, ...	168
Slaughtering inspection, quarterly report on, ...	21, 152, 215
Slaughtering, report upon, ...	21, 45, 81, 97, 115, 152, 215
State District Health Officers in the Massachusetts State Department of Health, notice of a competitive examination for qualification on the eligible list of candidates, ...	66
State Health Departments fighting cancer, ...	49
Summary of the annual report of the Surgeon-General of the United States Public Health Service, ...	9
Syphilis, legislation relative to the prevention and suppression of, ...	81

	PAGE
Tuberculosis and poverty, ...	92
Tuberculosis dispensaries, minimum requirements for, as defined by the State Department of Health, ...	134
Tuberculosis in Massachusetts, ...	189
Tuberculosis survey in Michigan, ...	191
Tuberculosis nurses' conferences, ...	3
Tuberculosis visiting work, material relief, by Miss Lucy W. Bradley, ...	5
Trustees of certain institutions, opinion of the Attorney-General relative to certain county commissioners, ...	136
Typhoid fever (milk-borne) at Northbridge, October, 1915, ...	56
Vaccination, opinion of the Attorney-General relative to certain questions, ...	211
Vital statistics tables (new), ...	51

